

# U.S. Department of Commerce

# Bureau of Industry and Security

Annual Report to the Congress for Fiscal Year 2013

# **Table of Contents**

Bureau of Industry and Security Fiscal Year 2013 Annual Report	3
Appendix A: Regulatory Changes in Fiscal Year 2013.	25
Appendix B: Bureau of Industry and Security Organizational Structure and Administrative Information	27
Appendix C: Summaries and Tables of Closed Export Enforcement Cases and Criminal Cases	29
Appendix D: Number of Individual Firms, Transactions, Requesting Documents and Restrictive Trade Practification Type	
Appendix E: Approved Applications for Country Group D:1 and Cuba	54
Appendix F: Report on Domestic Impact of U.S. Exports to Controlled Countries	69
Appendix G: Agricultural Supply Tables and Information	73
Appendix H: Export Control Reform Fact Sheets, Speeches, and Testimony	74

# Bureau of Industry and Security Fiscal Year 2013 Annual Report

This report summarizes the activities of the Department of Commerce's Bureau of Industry and Security (BIS) during Fiscal Year 2013, from October 1, 2012, through September 30, 2013.



"Over the past three years, the Obama Administration has sought, through export control reform, to achieve greater regulatory efficiency and rationality, focus controls on the most significant items and destinations, increase education to sensitize exporters to their compliance responsibilities, and strengthen enforcement."

Under Secretary Eric L. Hirschhorn

**Background on BIS** 

BIS advances U.S. national security, foreign policy, and economic objectives by ensuring an effective export control and treaty compliance system, and by promoting continued U.S. leadership in strategic technologies. BIS accomplishes its mission by maintaining and strengthening adaptable, efficient, and effective export control and treaty compliance systems.

BIS administers and enforces controls on the export of items with chiefly commercial uses that can also be used in conventional arms, weapons of mass destruction, terrorist activities, or human rights abuses; less sensitive military items being transferred from the Department of State under the President's Export Control Reform initiative; and certain crude oil and timber. BIS administers and enforces these controls in coordination with several other agencies. BIS implements these controls primarily through the Export Administration Regulations (EAR). The EAR set forth license requirements and licensing policy for the exports of these items.

Enforcement is an essential aspect of the BIS mission.

Enforcement efforts encourage compliance, prevent and deter violations, disrupt illicit activities, and bring violators to justice. BIS achieves these important objectives through a law enforcement program focused on parties engaged in the export of sensitive commodities, software, and technology to end uses, end users, and destinations of concern.

BIS plays a significant role in the four major multilateral export control regimes and three treaties which deal in different industry sectors: the Australia Group (chemical and biological nonproliferation), the Missile Technology Control Regime, the Nuclear Suppliers Group, the Wassenaar Arrangement (conventional arms and related dual-use goods, software, and technologies), the Chemical Weapons Convention (chemical weapons nonproliferation), the Additional Protocol to the U.S.-International

Atomic Energy Agency Safeguards Agreement (nuclear weapons nonproliferation), and the Biological Weapons Convention (biological weapons nonproliferation).

BIS also is responsible for a number of functions related to the defense industrial base and enforcing prohibitions related to certain foreign boycotts.



"During the past year, BIS has made tremendous progress in moving its licensing processing operations to the Obama Administration's USXPORTS licensing system. During the coming year, BIS will complete the transfer to USXPORTS thereby joining the Departments of Defense, Energy, and State as users of a single IT platform for processing all export licenses."

Deputy Under Secretary Daniel O. Hill

BIS consults closely with industry on the development of regulatory policy through its Technical Advisory Committees (TACs). The TACs provide valuable industry input on trends in technology and the practicality and likely impact of export controls. BIS also conducts numerous outreach events throughout the United States and overseas to educate and update the public on export controls and policy.

## **Export Control Reform Update**

In 2009, President Barack Obama directed the agencies involved in administering the U.S. export control system to conduct a broad-based review of export controls in order to enhance national security. This review led to the Export Control Reform (ECR) initiative. One of the key aspects of ECR has been the effort to move less sensitive items (primarily parts and components) from the less flexible U.S. Munitions List (USML) of the International Traffic in Arms Regulations (ITAR), which is administered by the Department of State, to the more flexible Commerce Control List (CCL) of the Export Administration Regulations (EAR), which is administered by BIS. This effort will increase military interoperability with allied countries, strengthen the U.S. industrial base by reducing incentives for foreign manufacturers to design out and avoid using U.S. parts and components, and allow the U.S. Government to focus resources on the most serious national security and proliferation concerns.

During the FY 2013, the Obama Administration continued to make extraordinary progress in its watershed effort to reform the nation's export controls. After forty proposed rules, numerous interagency meetings, and over 300 outreach events with the public, BIS and the Department of State published the first two sets of final rules that would implement the transfer of thousands of less sensitive military items from the USML to the CCL. This transfer marks the biggest change to the U.S. export control system in decades and moves the system from one that operated primarily under 1970s-era laws that addressed Cold War concerns to one that will meet the national security and foreign policy needs of the 21<sup>st</sup> century.

#### *Initial Implementation of ECR*

On April 16, 2013, BIS and the Department of State published final rules providing for the initial implementation of ECR. The final rules described those military aircraft and gas turbine engine items warranting continued control on the USML under Category VIII or XIX and described those less sensitive military aircraft and gas turbine engine items moving from the USML to the CCL as "600 series" items. In addition, the final rule established a definition of "specially designed," which is used as a classification parameter in hundreds of entries on the CCL. Prior to finalizing this definition of "specially designed," it was necessary to eliminate the various and inconsistent interpretations of the term and to establish a level playing field for organizations. Establishing a definition of "specially designed" will also lead to greater predictability and consistency in the export control system, which will protect U.S. national security interests and ensure the U.S. Government is meeting its multilateral regime commitments.

The April 16 rules also provided for structural framework changes and transition guidance to ease the burden of complying with the new changes. To give organizations time to review their classifications, software programs, and compliance procedures, the final rules provided for a 180-day delay in the effective date, making October 15, 2013 the effective date for the initial implementation of ECR. Further, the final rules established guidelines on grandfathering existing State licenses or other approvals and utilizing prior commodity jurisdiction determinations. BIS also revised existing EAR license exceptions to ensure that the scope of EAR exceptions match the scope of existing ITAR exemptions to the extent possible.

The transition guidance also provided the ability for holders of State licenses to "preposition" license applications with BIS to provide greater efficiencies for those exporters preferring a quicker transition to the EAR. The new Munitions Control Division, which was established by BIS to process 600 series license applications, will continue to accept license applications immediately after the applicable final rule publication date for processing. For applications that are approved, BIS will hold the application without action and issue the license on the effective date.

The April 16 rules also included a significant new mechanism to help reduce the burden for exporters. Shortly before the April 16 rules were published, President Obama signed Executive Order 13637. In addition to updating outdated delegations under the Arms Export Control Act (AECA), E.O. 13637 delegated to the Secretary of State the authority to license or otherwise authorize items subject to the EAR, as agreed upon by the Secretaries of State and Commerce. To reflect this fact, the April 16 rules provided for a mechanism under new § 120.5(b) of the ITAR and § 734.3(e) of the EAR to allow the Department of State to authorize items subject to the EAR that will be used in or with items subject to the ITAR. This change will help ensure that ECR does not result in an unintentional increase in burden for exporters by allowing them to continue to apply for one license from one agency for transactions involving both items subject to the EAR and items subject to the ITAR.

On July 8, 2013, BIS and the Department of State published the second set of final rules implementing ECR. These final rules describe those military vehicles, vessels, materials/miscellaneous items, submersibles,

and related items (Categories VI, VII, XIII and XX) warranting control on the USML and those less sensitive items moving to the CCL. Like the April 16 rule, the July 8 rule has a 180-delay in the effective date. Thus, the changes will become effective on January 6, 2014.

Lastly, by the end of the fiscal year, BIS was working with its interagency partners to finalize revisions to USML Categories IV (missiles and launch vehicles), V (explosives and energetic materials), IX (military training equipment), X (personal protective equipment), and XVI (nuclear items). It is anticipated that the set of final rules for those categories will be published near the end of calendar year 2013.

### Continued Review of USML Categories

In addition to the final rules moving items from the USML to the CCL, BIS and the Department of State continued to publish more proposed rules on revising additional USML categories. One of the most important categories proposed during the fiscal year was USML Category XV. Section 1513 of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 required that all satellites and related items be subject to the ITAR. Consequently, USML Category XV is the only part of the USML that was required by law to explicitly control commercial items. As a result of the National Defense Authorization Act for Fiscal Year 2013 (Pub. L. 112-239), the President was authorized to review USML Category XV to determine what items continued to warrant control under the AECA. On May 24, 2013, BIS and the State Department published proposed rules that described those satellites, spacecraft, and related items the President had determined warranted continued control under USML Category

XV and described those less sensitive items moving to the CCL under the 9x515 ECCNs. Revising USML Category XV will have a tremendous impact on the U.S. commercial satellite industry and remains a high priority for the Administration. Another significant USML category that was addressed during the fiscal year was USML Category XI for military electronics. Military electronics comprise the second largest category in licensing volume behind military aircraft. On November 28, 2012, BIS and the Department of State published a proposed rule that described those military electronics and related items that warrant continued control under USML Category XI and described those less sensitive items moving to the CCL as 600 series items. After significant interagency review of public comments, BIS and the Department of State published a second proposed rule on July 25, 2013.

BIS and the Department of State also published a set of proposed rules for USML Category IV on January 31, 2013. The proposed rules described those launch vehicles, missiles, rockets, military explosive devices, and related items that warrant continued control under USML Category IV and described those less sensitive items moving to the CCL as 600 series items.

Over the course of fiscal year 2014, BIS and its interagency partners will continue to publish proposed rules for the remaining USML categories. For those USML categories already proposed, BIS and its interagency partners will continue to review public comments and prepare additional final rules to implement ECR on a rolling basis.

#### ECR Educational and Outreach Activities

A key goal for ensuring the success of ECR is an informed regulated community. BIS has developed and implemented a targeted and multifaceted outreach program to educate organizations of all sizes on regulatory requirements resulting from the new rules. BIS is working to reach as many affected organizations as possible, especially those organizations primarily exporting under the ITAR who may be unfamiliar with the EAR.

As part of this effort, BIS has partnered with non-profit educational associations, local District Export Councils, the President's Export Council Subcommittee on Export Administration, the Small Business Administration, and the Minority Business Development Agency to educate defense exporters, including many small firms (mainly parts and components suppliers and manufacturers) whose transactions typically fell under the jurisdiction of the ITAR.

BIS has complemented this outreach by conducting a weekly teleconference on specific ECR topics hosted by the Assistant Secretary of Commerce for Export Administration (or other BIS officials) to respond to questions posed by the exporting community. BIS also continues to make educational resources available on its website, including webinars and web-based decision tools. Along with the decision tool on License Exception Strategic Trade Authorization (STA), BIS added two new decision tools – one for the order of review for classifying items subject to the EAR and one for utilizing the new definition of "specially designed." These new tools, in addition to the existing online training materials on the BIS website, will greatly assist those less familiar with the EAR to understand their compliance responsibilities.

BIS is also working to implement aspects of ECR with other U.S. Government agencies and to educate agencies about the reform effort, particularly those agencies responsible for enforcing export controls. In order to capture the exports of items transitioning from the USML to the CCL, BIS worked with U.S. Customs and Border Protection (CBP) to program new requirements into the Automated Export System (AES). On April 17, 2013, an email message was sent nationwide to all AES filers instructing them of the new AES reporting requirements under the initial implementation rule. BIS also trained CBP agents in six locations across the country in advance of the effective date of the initial implementation rule.

### Strengthening Safeguards under ECR

An additional key aspect of ECR is to create more effective safeguards, or "higher fences," to keep the most sensitive items and technology away from foreign entities that seek to harm our national interests. Last fiscal year, the Administration established the Information Triage Unit (ITU), which is hosted and administered by BIS. The ITU is responsible for assembling, analyzing, and disseminating information from all sources to inform agencies about the bona fides of parties to a license application. As part of the license application process for 600 series items, the Munitions Control Division will have access to information provided by the ITU.

On September 11, 2013, BIS published a proposed rule that will enhance BIS's ability to complete end-use checks by strengthening the Unverified List. This will increase U.S. Government insight into potential transactions of concern involving foreign parties for whom BIS has been unable to

verify their suitability and reliability to receive items subject to the EAR. This action will provide more clarity to exporters on how to address "red flags" involving transactions with foreign parties where BIS has been unable to successfully complete an end-use check.

BIS and the Department of State also initiated the coordination of end-use checks where USML and CCL items are co-located, so that both organizations expand the number of end-use checks conducted by the U.S. Government. As a result of ECR, opportunities for such coordination will increase where 600 series parts and components are exported to the same location as USML end items.

(Please see Appendix H, page 74, for additional export control reform information.)

# **Export Control Policy and Regulations**



"The Obama Administration is in the process of dramatically reforming the Cold War era export control system. These reforms are vital to our national security, economic security, and foreign policy interests."

Assistant Secretary for Export Administration Kevin J. Wolf

# **Export Licensing**

### **Export License Processing**

In FY 2013, BIS processed 24,782 export license applications for transactions. This marked a significant increase from the 23,229 applications processed in FY 2012. BIS approved 20,948 license applications (84.5 percent), returned 3,656 applications without action (14.8 percent), and denied 177 applications (less than one percent). In FY 2013, BIS's average processing time to review a license application was 26 days. This includes time for reviews by other agencies.

Crude oil was the category of approved license applications with the highest transaction value. The greatest number of license application approvals under a single commodity classification was for chemical manufacturing facilities and equipment (ECCN 2B350), with 3,092 approved applications for exports and reexports worth \$671.9 million.

# **License Applications Escalated for Interagency Resolution**

Under Executive Order 12981, BIS's Operating Committee (OC) – with membership including the Departments of Commerce, Defense, Energy, and State – is tasked with resolving interagency disagreement on specific license applications. In FY 2013, 312 cases were escalated to the OC for dispute resolution. Of those 312 cases, 27 were further escalated to the Assistant Secretary-level Advisory Committee on Export Policy for resolution.

### **Exports under License**

BIS obtains data from the Bureau of the Census (Census) on exports subject to BIS licensing requirements to evaluate the impact controls have on U.S. exports. For calendar year 2012 (the most recent data available to BIS for this report), U.S. companies exported \$5 billion of licensed items (of which 2.4 percent were exported under a special comprehensive license), and \$21.8 billion of items under a license exception, representing 0.3 percent and 1.4 percent, respectively, of overall U.S. exports.

BIS continues to work with Census and the Department of Homeland Security's U.S. Customs and Border Protection to improve the Automated Export System (AES) and to increase exporter compliance with the EAR. In FY 2013, BIS made additional changes to AES to accommodate the initial implementation rules of the Export Control Reform Initiative.

#### **Commodity Classifications**

To ascertain whether an export license is required from BIS, an exporter needs to classify the item to be exported by determining the ECCN and may request an official classification from BIS. In FY 2013, BIS processed 5,577 classification request applications, including encryption requests, in an average of 33.3 days.

Submission of a classification request does not necessarily mean that the regulation was unclear and that the exporter could not determine what the classification of the item at issue is. Exporters often seek official classification determinations from BIS for business, recordkeeping, or other reasons unrelated to whether a classification could be self-determined.

# **Commodity Classification Determinations** and Licensing of Encryption Items

The FY 2010 removal of the commodity classification determination requirements for less sensitive encryption items resulted in a significant decrease in the number of encryption commodity classification requests. The 1,550 requests processed in FY 2013 are approximately 50% less than the number processed in FY 2010. The encryption registration process, which replaced encryption reviews for many items, continued at a steady pace with 1,450 encryption registrations filed in FY 2013. Many of these registrations are by mobile app developers, both U.S. and foreign. BIS also approved more than 1,900 licenses for encryption items in FY 2013. The number of licenses has remained steady over the past three years, despite increased use of encryption licensing arrangements, which authorize unlimited shipments of encryption products with notification and reporting requirements.

#### **Commodity Jurisdiction Determinations**

A commodity jurisdiction (CJ) request is used to determine whether an item or service is subject to the export licensing authority of the Department of Commerce or the Department of State, Directorate of Defense Trade Controls (DDTC). Exporters may request a CJ determination by submitting the request to DDTC, which has final jurisdiction determination authority. In FY 2013, BIS provided recommendations to the State Department on 1,203 CJ requests in an average of 20 days.

# Special Comprehensive Licenses, Internal Control Program Reviews, and Export Compliance Programs and Validated End-User Program

In an effort to streamline licensing procedures while protecting U.S. national security, BIS administers special license and authorization programs.

In FY 2013, BIS conducted two desk audits of holders of Special Comprehensive Licenses (SCL), which are issued to qualified exporters and consignees in place of individual export licenses. BIS also conducted 14 Export Management and Compliance Program (EMCP) reviews of corporate written compliance programs and conducted one two-day and four one-day seminars on how to develop an EMCP, in various U.S. cities.

During FY 2013, BIS conducted 9 deemed export license on-site compliance reviews to confirm implementation of technology control plans and other conditions associated with those licenses. In addition, BIS reviewed exports made under the new license exception Strategic Trade Authorization (STA). Forty-three desk reviews were conducted by BIS's Export Management and Compliance Division (EMCD). Of these exports, 36 were completely compliant with STA requirements, and 7 involved minor technical errors. In addition to these 43 desk reviews, BIS completed 2 on-site document reviews of STA in FY2013. These additional on-site reviews did not uncover any compliance issues and provided BIS an opportunity to discuss compliance procedures related to the license exception with some of the larger users during the year.

In FY 2013, BIS implemented the decisions

of the End-User Review Committee (the interagency group that administers the Validated End-User (VEU) Program) and published six rules modifying the list of VEUs in the People's Republic of China and India. Three of these rules qualified an additional four companies as VEUs in China: Advanced Micro-Fabrication Equipment, Inc., Intel Semiconductor (Dalian) Ltd., Samsung China Semiconductor Co. Ltd., and Shanghai **Huahong Grace Semiconductor** Manufacturing Corporation (HHGrace). One rule removed two VEUs as the result of a merger (the merged company, HHGrace, remains a VEU), and another rule added a requirement to the EAR for persons shipping under Authorization VEU to send written notice of such shipments to the recipient VEU.

#### **License Determinations**

License Determinations (LDs) are used to support BIS enforcement actions connected with potential violations of the EAR. In FY 2013, BIS completed 436 enforcement LDs in an average of 31 days. In addition, BIS processed 284 LDs for the Federal Bureau of Investigation and 1,502 LDs for the Department of Homeland Security in support of investigations of potential unlawful exports.

# **Foreign Policy-Based Controls**

#### **Entity List-related Developments**

In FY 2013, BIS implemented the decisions of the End-User Review Committee (ERC), the interagency group that administers the Entity List, and published five Entity List-related rules. The Entity List is a list of names of certain foreign persons – including businesses, research institutions, government and private organizations and

individuals that are subject to specific license requirements for the export, reexport and/or transfer (in-country) of specified items subject to the Export Administration Regulations (EAR). On an individual basis, the persons on the Entity List are subject to licensing requirements and policies supplemental to those found elsewhere in the EAR.

Through publication of these rules, 185 persons (in 189 separate entries) were added to the Entity List on an ad hoc basis. Additionally, five persons were removed from the Entity List - three in response to an appeal, and two as a result of the ERC's annual review of the Entity List. Finally, four modifications were made to existing entries on the Entity List.

# **Export Enforcement**



"For the first time in a generation, we're taking significant and concrete steps to make our export control system more efficient and transparent for exporters. Just as critical, we're creating more effective safeguards — what we call "higher fences" - to keep items and technology away from foreign entities who seek to harm our national interests."

Assistant Secretary for Export Enforcement David W. Mills

This past year marked the 30th anniversary of the establishment of a criminal law enforcement capability within what is now known as the Bureau of Industry and Security, or BIS, at the Department of Commerce. Over the past 30 years, Export Enforcement at BIS has evolved into a sophisticated law enforcement agency, with criminal investigators and enforcement analysts who are singularly focused on export control working closely together with licensing officers within a single bureau of the government. Using our subject matter expertise in the area of export controls, coupled with our unique and complementary administrative enforcement tools, we have also leveraged our relationships with our partner law enforcement and intelligence agencies as well as with our partners in industry to maximize the impact we are having.

#### **Penalties**

BIS investigations in FY 2013 resulted in the criminal conviction of 52 individuals and businesses for export violations, as compared to 27 convictions in FY 2012. The penalties for these convictions came to \$2,694,500 in criminal fines, more than \$18 million in forfeitures, and more than 881 months of imprisonment, compared to \$4,786,500 in criminal fines, more than \$5 million in forfeitures, and more than 187 months of imprisonment in FY 2012.

In FY 2013, BIS investigations resulted in the completion of 71 administrative export and antiboycott actions against individuals and businesses and \$6,524,955 in civil penalties, as compared to 42 actions and more than \$7,442,600 in civil penalties in FY 2012. Of the 71 actions closed in FY 2013, eight involved antiboycott violations that resulted in total civil penalties of \$408,705.

#### **Preventive Enforcement**

In FY 2013, BIS continued to emphasize its enforcement activities that focus on prevention and compliance. Export Enforcement officials participate in the export licensing process by making recommendations on license applications, detaining shipments that may have been undertaken in violation of the EAR, and in some significant cases seeking the issuance of Temporary Denial Orders to prevent imminent export violations.

End-use checks continue to serve as a valuable safeguard and preventive enforcement tool for verifying the bona fides of foreign end-users, ensuring that exported items have been or will be properly used as authorized, and that license conditions are adhered to. BIS end-use checks have been effective in revealing unauthorized end-uses, including improper or unauthorized diversion, of items subject to BIS jurisdiction.

In FY 2013, BIS completed 1,033 end-use checks in 50 countries. This represents a 3.9 percent increase above the previous year's performance, and a 21.5 percent achievement over FY 2013 goals. Of these, 164 were Pre-License Checks (PLCs), which are conducted to prevent the release of sensitive items to unreliable parties, and 869 were Post-Shipment Verifications (PSVs), which assist the U.S. government in monitoring such transactions to conclusion. Approximately 73 percent of the checks were conducted by BIS Export Control Officers (ECOs) stationed at U.S. Embassies and consulates in Moscow, Beijing, Hong Kong, New Delhi, Abu Dhabi, and Singapore with regional responsibilities. The remaining checks were conducted by Office of Export Enforcement Special

Agents and Analysts deployed from the United States to conduct end-use checks in certain countries, or by Foreign Commercial Service Officers and support personnel stationed at various U.S. Embassies. BIS used the results of the negative checks to prevent future exports to unsuitable end-users and to take enforcement action where appropriate.

In situations where BIS cannot make a recommendation on an end-use check because the U.S. Government was unable to conduct the check or was otherwise unable to verify the existence or authenticity of the end-user, the end user may be considered for inclusion on the Entity List or the Unverified List. The presence of an enduser on the Entity List provides notice to the public that certain exports, reexports, and transfers (in-country) to the identified parties are subject to licensing requirements and policies supplemental to those found elsewhere in the EAR and that availability of license exceptions in such transactions is limited. Any transaction in which an enduser listed on the Unverified List as a party will be deemed by BIS to raise a red flag with respect to such a transaction within the meaning of the guidance set forth in Supplement No. 3 to 15 C.F.R. Part 732.

BIS completed a significant number of additional preventive enforcement actions in FY 2013, including the issuance of 240 warning letters, 351 detentions, and 84 seizures. Two Temporary Denial Order renewals were issued, with one of the renewal orders also including the addition of a related person, against eight companies and four individuals; denial orders were imposed in 46 matters; 33 denial orders were issued under Section 11(h) of the EAA (which authorizes denial of export privileges

of parties convicted under certain Federal statutes); and 1,522 outreach contacts were made with industry.

#### **Antiboycott Activities**

During FY 2013, 8 companies agreed to pay civil penalties totaling \$408,705 to settle allegations that they violated the antiboycott provisions of the EAR, as compared to 10 antiboycott cases that involved \$142,600 in total penalties in FY 2012.

In FY 2013, BIS responded to 1,014 requests from companies for guidance on compliance with the antiboycott provisions of the EAR. BIS continued to reach out to exporters, manufacturers, freight forwarders, bankers, and attorneys involved in international trade, and to provide extensive counseling to individual companies with boycott-specific problems. The Office of Antiboycott Compliance (OAC) provided export counseling to several U.S. firms seeking to remove boycott-related language from tenders originating in the UAE and Saudi Arabia; and continued to work with the U.S. Embassy in Baghdad to assist U.S. firms seeking to register their patents in Iraq and to remove boycott-related language from tenders.

The U.S. has long opposed the Arab League boycott of Israel. The antiboycott provisions of the Export Administration Act were adopted to encourage or require U.S. firms to refuse to participate in foreign boycotts that the U.S. does not sanction. During FY 2013, officials from the Departments of State, Commerce, and Treasury, and from the Office of the U.S. Trade Representative, engaged Arab League member states, re-emphasizing U.S. opposition to the Arab League boycott of Israel. In so doing, OAC and its government partners stressed the extent to which boycott

requests to U.S. companies impede trade. This message resonates with many Arab League members because they recognize the Arab League boycott serves as a barrier to participating in the global economy, attracting foreign investment, and expanding trade in the region. They also recognize that the boycott has not stifled Israel's growing economy. As a result, several Arab League members have terminated adherence to what they consider to be the secondary and tertiary aspects of the boycott. In addition, U.S. Embassies throughout the Middle East and North Africa continue to highlight and brief host governments on the incidents of boycott-related requests made by local companies and government agencies in contracts and commercial documents sent to U.S. firms. OAC provided export counseling to three U.S. firms seeking to remove boycott-related language from tenders originating in the UAE, Saudi Arabia, and Qatar.

OAC also continued to work with the U.S. Embassy in Baghdad to assist U.S. firms seeking to register their trademarks in Iraq and to remove boycott-related language from tenders. U.S. companies and their subsidiaries have encountered a significant number of boycott-related requests in recent years. Data compiled by OAC indicate prohibited requests received by U.S. firms from Iraq have increased from nine in FY 2008 to 72 in FY 2013. Nearly all of the prohibited requests reported to OAC in FY 2013 were either tender documents from the Iraqi Ministry of Health (requesting information about a firm's business relationship with Israel) or a boycott questionnaire given to U.S. companies from the Iraqi Patent Office as part of the patent application process. (In August 2012, as a result of this spike, the Treasury Department added Iraq to its list of countries that require or may require participation in or cooperation

with an international boycott.) An OAC representative attended the inaugural meeting of the Trade and Finance subgroup of the bilateral U.S.-Iraq Joint Coordinating Committee (JCC) in Baghdad in March 2013. The meeting focused on nontariff barriers to trade, including Iraq's enforcement of the Arab League boycott of Israel. The U.S. delegation urged Iraqi government ministries to stop including prohibited boycott language in documentation requirements and requested that the Iraqi government revise its documentation requirements so as to allow U.S. companies to be able to trade with Iraq and comply with U.S. law. Subsequently, the Iraqi Council of Ministers Secretariat issued a directive in June 2013 to ministries and other procurement entities not to issue requests to U.S. companies for the purpose of enforcing the Arab League boycott of Israel. OAC will continue to monitor reports filed quarterly by U.S. companies and their subsidiaries of requests they have received to take certain actions to comply with, further, or support an unsanctioned foreign boycott.

For additional information related to significant BIS enforcement activities, see Appendices C and D.

# **Industry Outreach Activities**

#### **Seminars and Conferences**

BIS export outreach and education constitute the first line in BIS's contact with U.S. exporters and provides guidance and transparency to new and experienced exporters regarding the EAR. BIS counseling operations have been instrumental in assisting the exporting community in understanding and complying with critical national security and foreign policy-based regulations. Each year, counselors in the BIS Office of Exporter

Services' (OExS) Outreach and Educational Services Division and Western Regional Office provide regulatory, policy and process guidance to tens of thousands of exporters, forwarders, universities and individuals, enabling them to meet their obligations under the EAR.

In FY 2013, BIS added new content to its outreach and education in furtherance of the Export Control Reform Initiative and related regulatory developments. The regulated community was asked to comment on proposed regulations relating to Export Control Reform. BIS continued a series of outreach activities designed to educate industry on these proposed regulations. BIS's activities included webinars, teleconferences, and on-location panel sessions at various conferences. For example, Assistant Secretary Wolf spoke weekly via teleconference with industry representatives on the proposed and final Initial Implementation of Export Control Reform rules, which provided for how items previously on the U.S. Munitions List would be controlled on the Commerce Control List. These weekly teleconferences allowed BIS to address specific questions from the business community. These calls both educated the regulated community on the reform rules, and helped elicit useful stakeholder feedback.

One-on-one counseling assistance is provided on both coasts for extended periods of operation each day. In addition, counselors conduct dozens of highly regarded and cost-effective seminars throughout the United States in the high technology communities most affected by these regulations. Over the past few years, BIS has developed additional capabilities to offer training online. These services have been particularly useful for small and

medium-sized businesses that operate with more limited compliance resources.

In FY 2013, BIS reached more than 17,000 stakeholders through 237 different types of events, including 3,000 people who attended 30 domestic export control seminars conducted in 14 states and the District of Columbia. In comparison, BIS in FY 2012 BIS reached approximately 4,500 people through domestic export control seminars conducted in 13 states and the District of Columbia. These seminars provided guidance to new and experienced exporters regarding the EAR, changes in export policy, and licensing procedures, as well as encryption and technical data issues. Over ninety percent of attendees rated the seminars either "good" or "excellent" in FY 2013. BIS also participated as a speaker or with organized information booths at several dozen additional events hosted by other organizations.

BIS held its 26th annual Update Conference on Export Controls and Policy between July 23, 2013 and July 25, 2013 in Washington, D.C. The conference attracted over 1,100 participants. Under Secretary of Commerce for Industry and Security Eric L. Hirschhorn and Assistant Secretary of Commerce for Export Administration Kevin J. Wolf provided updates on the progress of the Export Control Reform Initiative. Assistant Secretary of Commerce for Export Enforcement David Mills provided an update on Export Enforcement, highlighting trends and several recent enforcement actions taken by BIS. One of the highlights of the conference was the address on July 23 by new Secretary of Commerce Penny Pritzker emphasizing the forthcoming benefits of Export Control Reform. Assistant Secretary Wolf again offered an open forum session which permitted participants to interact on issues relating to

U.S. Munitions List (USML) and Commerce Control List (CCL) changes, industry advisory committee perspectives, and export controls and services for small and medium size enterprises. Update 2013 Conference information, including speeches, videos and presentations, is available on the BIS website.

BIS also holds an annual Export Control Forum in California. This past year it was held on February 25-26, 2013 and attracted approximately 200 attendees, many of whom were from technology firms.

BIS also provides an introductory series of easy-to-use training modules. Six of those modules mirror content provided in the "Complying with U.S. Export Controls" seminars that BIS currently offers around the United States. This service offers exporters and reexporters - particularly small and medium-sized enterprises - a cost-saving mechanism to learn about U.S. export controls.

During FY 2013, BIS began developing new approaches, tools and partners in support of Export Control Reform. In addition to Assistant Secretary Kevin Wolf's weekly ECR conference calls, the Office of Exporter Services worked with representatives from the President's Export Council Subcommittee on Export Administration and trade associations to identify and propose actions to educate industry on the existing and anticipated changes to the Export Administration Regulations that have been proposed pursuant to ECR. BIS is making use of teleconferencing, webinars, interactive webbased tools, and specialized workshops to reach the exporters that will be most affected by these changes.

BIS continued increasing its regulatory compliance education programs in the critical area of deemed exports. In FY 2013, BIS, in partnership with the University of Pennsylvania, conducted the largest deemed export conference to date, "The Impact of **Export Regulations on Higher Education** and Scientific Institutions," dealing with the impact of regulations, particularly deemed exports, on the academic and research community. The conference attracted approximately 165 attendees, including many first time registrants from small and medium size research universities. In addition, the President's Export Council Subcommittee on Export Administration and its Outreach Sub-committee continued to be a valuable source of program development for deemed exports.

BIS supports the interagency Trade Promotion Coordinating Committee (TPCC) as part of the TPCC's U.S. Export Pavilion and Trade Officer Training Conference. It also participates on its own in a number of trade related events. In FY 2013 BIS participated in 3 TPCC and two other major trade shows, including PITTCON, the Association of Small Business Development Centers (ASBDC), INFOCOM, NCBFAA, and the American Association of Exporters and Importers (AAEI).

BIS continued to support the Census Bureau's coordinated Automated Export System (AES) compliance seminars. In FY 2013, BIS presented in 14 U.S. cities on how to properly determine licensing requirements and report export control requirements in the AES. In addition, BIS prepared exporters and forwarders for the changes in AES to accommodate Export Control Reform.

BIS initiated outreach training with U.S. Customs and Border Protection in ports through which the majority of munitions exports flow. This ensured that Customs officers understood the Export Control Reform regulatory changes impacting controlled items in order to facilitate legitimate exports and disrupt unauthorized exports.

In addition, BIS continued to focus on the enforcement aspects of expanded outreach and deemed export compliance involving individuals and companies that had not previously submitted applications for actual or deemed export licenses. In FY 2013, BIS's Office of Export Enforcement conducted more than 843 enforcement outreach visits to such individuals and companies within the export community. BIS also initiated 92 leads and cases involving allegations of deemed export licensing violations.

### **Project Guardian**

BIS maintains a constructive and cooperative relationship with the business community through outreach programs sponsored by BIS's Export Enforcement arm. BIS's Project Guardian focuses on specific goods and technologies that illicit proliferation networks actively seek to acquire. BIS contacts U.S. manufacturers and exporters of these goods and technologies to apprise them of these acquisition threats and to solicit cooperation in identifying and responding to suspicious purchase requests. In FY 2013, BIS initiated 163 Project Guardian leads and conducted 78 Project Guardian outreach contacts.

#### Counseling

BIS received more than 35,000 phone and email inquiries through its counseling programs at BIS's Outreach and Educational Services Division in Washington, DC, and at

the Western Regional Office in California. Through these programs, BIS provides guidance on regulations, policies, and practices and helps to increase compliance with U.S. export control regulations.

# **International Cooperation**

BIS staff participated in bilateral discussions with Singapore and Hong Kong. BIS cooperated with the U.S. State Department on counter proliferation efforts with Malaysia, Taiwan and the United Arab Emirates. BIS also briefed management and procurement officials from the United Nations Development Program about U.S. export control requirements for sanctioned and embargoed countries.

BIS continued to support the Department of State's Export Control and Border Security (EXBS) program by providing technical expertise for 18 EXBS funded events in 14 countries.

# **International Regimes and Treaty Compliance**

BIS plays an important role in the U.S. Government's efforts to develop and refine the control lists and operational guidelines for the four major multilateral export control regimes: the Australia Group (chemical and biological weapons), the Missile Technology Control Regime, the Nuclear Suppliers Group, and the Wassenaar Arrangement (conventional arms and related dual-use items).

#### **Australia Group**

The Australia Group (AG), a multilateral export control regime, was formed in 1985 to help stem the proliferation of chemical and biological weapons through harmonized

export controls. The AG now includes 42 countries and the European Union. The AG meets annually and communicates between meetings to review and refine the list of controlled chemicals, biological agents, and related equipment and technology. The 2013 Intersessional Implementation Meeting was held from December 6-7, 2012 in Bonn, Germany. The 2013 Plenary Meeting was held from June 3-7 in Paris, France. BIS published a final rule amending the Export Administration Regulations (EAR) to implement the understandings reached at the June 2012 Plenary and Intersessional meetings. These regulatory changes are described in Appendix A of this report.

In FY 2013, BIS approved 4,636 license applications valued at \$3.8 billion for the export or reexport of items controlled by the AG. BIS denied 11 license applications valued at \$13.6 million, and returned without action 344 license applications valued at \$640.9 million.

# **Missile Technology Control Regime**

The United States is a member of the Missile Technology Control Regime (MTCR), a multilateral export control regime established in 1987. The MTCR currently includes 34 member countries that have agreed to coordinate their national export controls to prevent missile proliferation.

The annual Plenary Meeting of the MTCR was held in October 2012 in Berlin, Germany. During the Plenary, the United States highlighted the need for regionally-focused nonproliferation efforts from MTCR Partners, and the importance of effectively implementing catch-all controls to impede the flow of non-listed items to missile programs of concern. The Plenary reached

consensus on implementing a U.S. proposal for improving catch-all controls and agreed to begin work to update the Regime's handbook for licensing and enforcement officers.

The MTCR also held two Technical Experts Meetings (TEM); one in conjunction with the Rome Plenary and an intersessional TEM in May 2013 in Bonn, Germany, to discuss changes to the MTCR control list, the Equipment, Software and Technology Annex. Between the two meetings, several changes were made, including clarification of the control parameters on metal fuels used in solid rocket propellant, decontrol of lower Mach number wind tunnels with cross sections too small to make them usable in relevant aerodynamic testing, addition of specially designed umbilical and interstage electrical connectors, modifications to the controls on rocket propulsion systems to account for varying capabilities of liquid rocket engines due to differing fuel tank size, and the addition of gel propellant control systems. The changes that were a result of the Berlin TEM have been incorporated into the EAR; those from the Bonn TEM do not become official until the Plenary meets again and adopts them.

In FY 2013, BIS approved 957 applications, valued at \$2.18 billion, for the export or reexport of missile technology-controlled items. In addition, BIS denied 11 applications valued at \$1.7 million and returned without action 68 applications valued at \$164.2 million.

#### **Nuclear Suppliers Group (NSG)**

The NSG is a multilateral export control regime that was formally established in 1992 and now includes 48 members. The regime seeks to impede the proliferation of nuclear weapons through the implementation of

guidelines for the control of nuclear and nuclear-related exports. Members pursue the aims of the NSG through voluntary adherence to the NSG Guidelines, which are adopted either by consensus or through exchanges of information on developments of nuclear proliferation concern.

The 2013 Nuclear Suppliers Group (NSG) Plenary, Consultative Group (CG), Information Exchange (IEM) and Licensing and Enforcement Experts (LEEM) meetings were held in Prague, Czech Republic, during the week of June 10-14, 2013. The new chair is Ambassador Veronika Kuchynova Smigolova of the Czech Republic.

The Plenary endorsed 28 amendments to the control lists recommended by the CG as proposed by the Dedicated Meeting of Technical Experts (DMTE), thus successfully concluding a three year review initiated at the 2010 Christchurch Plenary. Any necessary changes to the Commerce Control List will be made.

The Plenary also approved the Terms of Reference (TOR) for a new Technical Experts Group (TEG) which will continue the review of the control lists as needed under the guidance of the CG. Vigorous and detailed discussions took place in the CG and the Plenary regarding membership for India.

During the Plenary, Participating Governments (PGs) took note of the Outgoing Chair's reports on NSG activities in the past year, including outreach with non-members such as India, Pakistan and Israel, and endorsed the Chair's recommendations with respect to outreach and engagement with India. In response to Ireland's request (on behalf of the EU), supported by Japan and the United States, for more information regarding China's decision to supply Chasma III & IV to Pakistan, China again stated that the decision was based on an agreement signed in 2003 prior to joining the NSG in 2004 and is therefore grandfathered.

Mexico and Serbia were welcomed as new members at their first Plenary.

In FY 2013, BIS approved 2,345 applications, valued at \$1.08 billion, for the export or reexport of items controlled for nuclear nonproliferation reasons. In addition, BIS rejected 15 applications valued at \$4.7 million and returned without action 120 applications valued at \$154.9 million.

## Wassenaar Arrangement

The Wassenaar Arrangement (Wassenaar) is a multilateral arrangement addressing export controls on conventional arms and sensitive dual-use goods and technologies.

Wassenaar was founded in 1996 to replace the East-West technology control program under the Coordinating Committee (COCOM) regime that ended in 1994.

There are currently 41 countries participating in Wassenaar.

Members are required to report approvals, transfers, and denials of certain items controlled under the Wassenaar Arrangement. Reporting denials helps to bring to the attention of member countries attempts to obtain strategic items that may undermine the objectives of Wassenaar.

Following the review and evaluation of the overall functioning of Wassenaar that took place in 2011, Wassenaar continued to keep pace with advances in technology and market trends. It has continued its efforts to contribute to international and regional security and stability by promoting transparency and greater responsibility in

the transfer of conventional arms and dualuse goods and technologies, thus preventing destabilizing accumulations. Wassenaar members have agreed to make further use of the Regional Views exercise, implementing a rotating focus on geographic regions. They also agreed to conduct further work on addressing new challenges, including emerging technologies of concern. Wassenaar members continued to work actively to make the existing control lists more readily understood and user-friendly for licensing authorities and exporters, and to ensure the detection and denial of undesirable exports. Export controls were strengthened in a number of areas including spacecraft and passive counter-surveillance equipment of mobile telecommunications. In addition, certain relaxations were introduced for gas turbine engines and machine tools, and the cryptographic note was revised. Wassenaar members also decided to conduct a comprehensive and systematic review of the Wassenaar Lists to ensure their continued relevance.

Significant efforts have also been undertaken to promote the Arrangement and to encourage voluntary adherence to the Arrangement's standards by non-Participating States.

Wassenaar continues to undertake outreach in support of its aims and objectives, in particular through post-Plenary briefings, interaction with industry, and bilateral dialogue with non-Participating States. For instance, members held a technical briefing on recent changes to the Wassenaar control lists for a number of non-Participating States.

The December 2012 Wassenaar Plenary reiterated that Wassenaar membership is open to all states in compliance with the agreed membership criteria.

# **Treaty Compliance**

BIS also administers the industry compliance program for the Chemical Weapons Convention (CWC), serves as a lead agency for implementation of the Additional Protocol (AP), and participates in activities associated with the Biological Weapons Convention (BWC).

### **Chemical Weapons Convention**

The United States ratified the Convention on the Prohibition of the Development, Production, Stockpiling, and Use of Chemical Weapons and their Destruction (the Chemical Weapons Convention, or CWC) on April 25, 1997. There are 190 States Parties to the CWC. The CWC bans the development, production, stockpiling, and use of chemical weapons and provides for an extensive verification regime to ensure adherence to its terms. BIS works actively with the Department of State, other CWC States Parties and the Technical Secretariat (TS) of the Organization for the Prohibition of Chemical Weapons (OPCW) to ensure that all 190 States Parties to the CWC are implementing the CWC's provisions in a rigorous, analytically sound, and equitable manner.

The CWC requires certain commercial chemical facilities to submit data declarations that include information on chemical production, processing, consumption, and import/export activities. In the United States, BIS collects this information, compiles it, and prepares for transmittal to the OPCWTS, which is charged with carrying out verification functions under the CWC.

During FY 2013, BIS collected declarations and reports from 555 facilities and trading companies in the United States and

submitted them to the Department of State for submission to the OPCW. BIS also provided advice and support to 16 chemical plant sites in the United States that were selected for inspection by the OPCW, hosted the inspections, and protected the sites' confidential business information while demonstrating their compliance with the CWC. Most of these companies had never been inspected before and benefited from BIS's efforts to guide them through the process.

In FY 2013, BIS gathered the necessary data and prepared the congressionally-mandated reports regarding the implementation of the CWC. These reports include: (1) an annual report on the cost of inspections to both industry and the government; and (2) an annual statement regarding the impact of the treaty on availability of Schedule 1 chemicals and toxins to industry, with a particular focus on adding salts of Schedule 1 chemicals to the Annex of Chemicals and the intermediate use of Schedule 1 chemicals in the production of some other chemical.

BIS provided support for meetings of the Executive Council and the Conference of States Parties, as well as other meetings of the policy-making organs of the OPCW, and for the majority of the fiscal year, provided an Alternate Permanent Representative on the U.S. Delegation to the OPCW.

# U.S. Additional Protocol to the U.S.-International Atomic Energy Agency (IAEA) Safeguards Agreement

The Additional Protocol is a bilateral treaty that supplements and amends verification arrangements under the existing "Agreement between the United States of America and the International Atomic Energy Agency for the Application of Safeguards in the United

States" of November 18, 1977 (U.S.-IAEA Safeguards Agreement). The Additional Protocol augments the U.S.-IAEA Safeguards Agreement by requiring the United States to provide the IAEA with information on certain civil nuclear and nuclear-related items, materials, and activities not currently covered by the Safeguards Agreement.

The Additional Protocol entered into force for the United States on January 6, 2009. Under Executive Order 13458, BIS is the lead agency for all subject commercial activities and locations not licensed by the Nuclear Regulatory Commission (NRC) or an NRC Agreement State, and not located on certain other government locations. BIS administers the compliance program involving private sector nuclear fuel cycle activities that are not subject to the jurisdiction of the NRC. BIS receives declarations from industry, the NRC and the Department of Energy, and assembles the U.S. national declaration and other reports to the IAEA.

BIS compiled the Additional Protocol declaration on behalf of all U.S. Government agencies and prepared the annual declaration, which was submitted to the IAEA on May 15, 2013. This declaration contains 338 changes and new activities. During FY 2013, BIS also submitted four quarterly reports for the export of nuclear equipment. There were 34 exports in the first quarter, 43 exports in the second quarter, 44 exports in the third quarter, and 21 exports in the fourth quarter.

#### **Biological Weapons Convention**

The Biological Weapons Convention (BWC) prohibits developing, producing, stockpiling, or otherwise acquiring or retaining biological agents or toxins for non-

peaceful purposes. The BWC entered into force in 1975. In FY 2013, BIS actively supported U.S. Government efforts, in accordance with the *National Strategy for Countering Biological Threats*, to prepare for and participate in the Meeting of States Parties. BIS also supported interagency participation in the annual Meeting of Experts. BIS continued to bring the U.S. industry's perspective into discussions on the full range of issues pertinent to the BWC through consultations with its Materials Technical Advisory Committee and various trade and professional associations.

# **Short Supply Controls**

BIS implements short supply controls on western red cedar, as required by section 7(i) of the EAA, and specified other timber as required by the Forest Resources
Conservation and Shortage Relief Act, as amended. BIS also controls the export of crude oil as required by the Energy Policy and Conservation Act, the Mineral Leasing Act, the Naval Petroleum Reserves
Production Act, and the Outer Continental Shelf Lands Act.

# U.S. Defense Industrial and Technological Base Programs

BIS's mission includes supporting continued U.S. technology leadership in industries that are essential to U.S. national security. Activities in this regard include:

# Administering the Defense Priorities and Allocations System

BIS's administration of the Defense Priorities and Allocations System (DPAS) continues to play an important role in supporting the deployment of U.S. and allied forces abroad, meeting critical national defense and homeland security requirements, and facilitating recovery from natural disasters. The U.S. Government places DPAS priority ratings on approximately 300,000 contracts and orders annually to support national defense requirements.

In FY 2013, in cooperation with the Department of Defense, BIS expedited the delivery of items critical to military operations in Afghanistan. BIS also provided DPAS guidance in support of interagency emergency preparedness activities.

The Defense Production Act (DPA), the statutory authority for the DPAS, was reauthorized on September 30, 2009 for five years. The 2009 legislation required that all delegate agencies develop rules for the use of their priorities and allocations authority. The 2009 legislation also established an interagency committee to advise the President on the effective use of DPA authority. In FY 2013, BIS worked with relevant federal agencies to take steps to implement the requirements contained in the 2009 legislation. BIS leaders also testified before Congress on the importance of reauthorizing the non-permanent provisions of the DPA, including the provisions that provide the statutory authority for the DPAS, before they expire on September 30, 2014.

# Committee on Foreign Investment in the United States

BIS participates in the Committee on Foreign Investment in the United States (CFIUS) by evaluating export control equities in transactions that could result in foreign control of a U.S. business. In FY 2013, BIS worked closely with the Department of Commerce's International Trade Administration (ITA) and interagency

CFIUS partners to review 111 CFIUS filings to determine the effects of those transactions on the national security of the United States. The filings are reviewed pursuant to the Foreign Investment and National Security Act of 2007 regulations published by the Department of the Treasury.

## Monitoring the Strength of the U.S. Defense Industrial and Technological Base

In FY 2013, BIS completed three assessments:

Cartridge and Propellant Actuated Device Industry: assesses the current and long-term health and economic competitiveness of the industry and develops recommendations for the U.S. Navy to ensure the continued ability of industry to support defense missions and programs. A final report was completed and submitted to the Department of Defense.

Consumers of U.S. Commercial Electro-Optical (EO) Satellite Imagery: analyzes the size and market behavior of the U.S. industry that directly or indirectly utilizes U.S. commercial EO imagery. A final report was completed and submitted to the project sponsors – the National Oceanic and Atmospheric Administration and the National Geospatial-Intelligence Agency.

Defense Supply Chain Network – Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR): provides a sector-by-sector, tier-by-tier (S2T2) evaluation of the defense industrial base with a specific focus on the C4ISR systems acquired by the Department of Defense. This study identified specific supply chains and cross-cutting supplier dependences in C4ISR systems. Over 3,000 industry surveys were

distributed. A completed database was assembled in FY 2013.

BIS also continued work on two assessments:

U.S. Space Industrial Supply Chain: examines the health of supply chains in the space industry – including satellites, ground systems, and launch, with particular emphasis on government program participation and suppliers from lower tiers. The survey, developed with NASA, National Reconnaissance Office, and the U.S. Air Force, was distributed to approximately 9,150 organizations, including companies, universities, non-profits, and U.S. Government agencies. Several reports associated with this project were finished in FY 2013 and additional mini-reports are slated for Spring 2014.

U.S. Infrastructure for Underwater Acoustic Transduction Systems: benchmarks the Underwater Acoustics industry to better understand the complicated industrial supply chain supporting critical U.S. Navy missions and programs. Three separate surveys were distributed to collect data from companies, government institutions, and universities. The writing and editing is underway and the report will be completed in Spring 2014.

BIS initiated the following two assessments in FY 2013:

Strategic and Critical Materials: studies the condition of the supply chains for defined classes of metals, rare earth materials, and carbon fibers. Performed in partnership with the Defense Logistics Agency, the goal is to understand the health and competitiveness of material suppliers and to identify potential problems in the supply base. Completion of this assessment is expected in FY 2014.

Cost Metrics: assembles information from government agencies and industry to provide a common understanding of costs associated with addressing Diminishing Manufacturing Sources and Material Shortages (DMSMS). The analysis provides data to validate the standardized solution categories and determine the cost of solutions for solving specific DMSMS problems. This study is being done in cooperation with the Department of Defense DMSMS Working Group, which is updating DMSMS Guidebook SD-22. OTE's report will be completed in FY 2014.

BIS also completed its seventeenth congressionally mandated report on the impact of offsets in defense trade. On December 23, 2009, BIS published a final rule to update its offset reporting requirement regulation in order to enhance the assessment of the economic effects of offsets. These changes were reflected in the seventeenth report to Congress.

In FY 2013, BIS reviewed 79 proposed transfers of excess defense equipment to foreign governments through the Department of Defense's Excess Defense Articles program and provided the Department of Defense with determinations whether these transfers would interfere with the ongoing sales or marketing activities of U.S. industry. BIS also reviewed 85 proposed international armament cooperative agreements and provided the Department of Defense with comments on these agreements' commercial implications and potential effects on the international competitive position of the U.S. defense industrial and technological base.

During FY 2013, BIS continued to co-chair the interagency National Defense Stockpile Market Impact Committee (MIC) with the Department of State's Bureau of Energy Resources. The MIC advises the Defense Logistics Agency whether proposed plans to sell portions of the remaining material held in the stockpile, no longer needed to support national defense purposes, and proposed plans to acquire new material to add to the stockpile would cause an undue disruption in the usual markets of producers, processors, and consumers of such materials.

# **Supporting the U.S. Defense Industry's International Competitiveness**

In FY 2013, BIS continued to administer the Department of Commerce's North Atlantic Treaty Organization (NATO) Security Investment Program (NSIP), a certification requirement for U.S. companies interested in competing to supply goods and services in NSIP-funded procurements.

During FY 2013, BIS vetted and approved 262 U.S. firms that were interested in participating in NATO procurement competitions.

# **Appendix A: Regulatory Changes** in Fiscal Year 2012

BIS published 27 notices, rules or other items in the *Federal Register* during FY 2012, including the following:

## **Export Control Reform (ECR)**

On April 16, 2013, BIS, in conjunction with the Directorate of Defense Trade Controls (DDTC), Department of State, published a final rule implementing the initial ECR changes by adding a structure and related provisions to control munitions items that the President has determined no longer warrant export control on the U.S. Munitions List on the Commerce Control List, specifically aircraft, gas turbine engines, and related items. This rule, which included transition procedures and a revised definition of "specially designed," was effective October 15, 2013.

On July 8, 2013, BIS, in conjunction with DDTC, published a final rule adding to the Commerce Control List military vehicles, vessels of war, submersible vessels, oceanographic equipment, auxiliary military equipment and related items that the President has determined no longer warrant control on the United States Munitions List (USML). This rule is effective January 6, 2014.

On November 28, 2012, BIS published a proposed rule to control, on the Commerce Control List, military electronics that the President determines no longer warrant control on the United States Munitions List. After review of the public comments, BIS published a second, revised proposed rule on July 25, 2013.

On January 31, 2013, BIS published a rule proposing controls under the EAR for

launch vehicles, missiles, rockets, and military explosive devices that the President determines no longer warrant control on the United States Munitions List.

On May 24, 2013, BIS published a rule proposing controls under the EAR for spacecraft systems and related items that the President determines no longer warrant control on the United States Munitions List.

#### **Commerce Control List Clarification**

On November 29, 2012, BIS published a rule proposing changes to make the Commerce Control List clearer.

#### **Entity List**

In FY 2013, BIS implemented the decisions of the End-User Review Committee (the interagency group that administers the Entity List) and published five Entity List-related rules. Within the five rules, 185 persons were added to the Entity List, the majority on the basis that they were engaging in activities contrary to U.S. national security or foreign policy interests. Additionally, five persons were removed from the Entity List. Finally, four modifications were made in order to clarify existing entries on the Entity List.

#### **Country Policy**

On July 23, 2013, BIS published a rule implementing a limited waiver by the Secretary of State of the Syria Accountability and Lebanese Sovereignty Restoration Act to allow issuing of licenses on a case-by-case basis for the support of the Syrian people.

#### Wassenaar Arrangement

On June 20, 2013, BIS published a rule amending the Commerce Control List to implement the agreements reached at the December 2012 plenary meeting of the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual Use Goods and Technologies. This rule revised control list entries in many CCL categories.

## **Chemical and Biological Weapons**

On June 5, 2013, BIS implemented changes to the Commerce Control List resulting from the 2012 Australia Group plenary meeting and intersessional decisions, as well as changes to select agent controls.

#### Missile Technology Control Regime

On July 16, 2013, BIS implemented changes to the Commerce Control List based on the 2012 Missile Technology Control Regime plenary agreements.

#### Validated End-Users

In FY 2013, BIS implemented the decisions of the End-User Review Committee (the

interagency group that administers the Validated End-User Program) and published six rules modifying the list of Validated End-Users in the People's Republic of China and India.

#### **Controlled Items**

On March 28, 2013, BIS published a rule imposing license requirements on certain biosensor systems under Export Control Classification series 0Y521.

#### **Voluntary Self-Disclosures**

On November 7, 2012, BIS proposed a rule requiring persons voluntarily disclosing violations of the Export Administration Regulations to submit a final account within 180 days of the initial disclosure. After revising the proposal in response to public comment, BIS adopted this proposal in a final rule published on July 8, 2013.

#### **Unverified List (UVL)**

On September 11, 2013, BIS published a proposed rule, which, if published in final form, would amend the EAR by imposing restrictions on exports, reexports, and transfers involving persons listed on BIS's Unverified List (UVL). These proposed restrictions are designed to provide for U.S. government insight into transactions involving listed persons, and further BIS's ability to conduct end-use checks.

# Appendix B: Bureau of Industry and Security Organizational Structure and Administrative Information

### **Performance Based Programs**

BIS has continued to develop performance-based budgets based on OMB guidance.
BIS budget submissions continue to be directly tied to the Bureau's performance goals and measures, and BIS will continue to develop performance-based budgets that display the cost of achieving its performance goals. Budget requests are integrated with performance goals and describe the anticipated effects of resource requirements on performance.

In the area of Strategic Management the Bureau continues to use the Department's balanced score card approach to management. This approach focuses on themes that reflect the priorities of the Department and BIS. BIS contributes to the Department's programmatic theme of Economic Growth and the three management themes of Customer Service, Organizational Excellence, and Workforce Excellence.

The Export Control Reform Initiative combines the efforts of the Export Control Automated Support System Redesign (ECASS-R) program and a collaborative effort with the Department of Defense to expand the role of USXPORTS to include BIS's licensing process. This effort has initiated mulitple projects to support the building and expansion of the BIS mission critical technology platform and orderly retirement of the ECASS mainframe. As part of this effort, several subprojects are either completed or under way:

- Simplified Network Application Process Redesign (SNAP-R) enhancements to support submission of Special Comphersensive Licenses (SCL) and Independent Validated License (IVL),
- 2. Migration of entity screening in the Investigative Management System Redesign (IMS-R) application,
- 3. Establishment of a technology platform to support various self-managed business applications such as CFIUS, Offsets, DPAS, and Consolidated List,
- 4. Development and implementation of license determination requests in the Investigative Management System Redesign (IMS-R) application and the Commerce USXPORTS Exporter Support System (CUESS), and
- Implementation of SIPRNet for the headquarters office and the BIS field offices.

The fully deployed collaborative system will provide BIS business users with a modernized export licensing system while protecting mission critical export control system applications and data from foreign intrusions.

## Cooperation with Auditing Agencies and Responses to Requests from the Public and the Courts

BIS program controls are sound and recommendations resulting from the Government Accountability Office (GAO) and the Department of Commerce's Office of Inspector General (OIG) are being addressed. BIS continues to work with GAO and OIG on their studies of BIS programs and control systems, as well as to address audit findings and recommendations. During FY 2013, we

submitted periodic reports to the Office of the CFO and Assistant Secretary for Administration on the status of BIS corrective actions of all open GAO and OIG recommendations. BIS management also monitored the progress of corrective actions on the basis of these reports.

Eight GAO studies addressing BIS programs and activities were completed in FY 2013. These studies were:

- 1) Foreign Sales of U.S. Manufactured Tactical Wheeled Vehicles (Job Code 121026),
- 2) U.S. Manufacturing Policy (Job Code 131128),
- 3) U.S. Munitions List (Job Code 121068),
- 4) Foreign Boycotts on the Defense Industrial Base (Job Code 121067),
- 5) Department of Commerce's Strategic Trade Authorization (STA) License Exemption (Job Code 320903),
- 6) Militarily Critical Technologies List (Job Code 121070),

- 7) Foreign Equipment in U.S. Telecommunications Networks (Job Code 543299), and
- 8) Titanium Procurement Restrictions on Domestic Manufacturers (Job Code 121092).

At the end of the fiscal year, two GAO studies and one IG study addressing BIS programs and activities are pending final report: GAO:

- 1) NASA's Export Control Program (Job Code 12137)
- 2) Implementation of U.S. Nuclear Export Control Policies (Job Code 361525)

**IG:** Export Control Reform Preparedness

# Appendix C: Summaries and Tables of Closed Export Enforcement Cases And Criminal Cases

# Table 1 Criminal Convictions During Fiscal Year 2013<sup>1</sup>

Sentencing Date	Defendant	Criminal Charges	Criminal Sanctions	Case Details
10/18/12	Mohammad Reza Hajian	One count of conspiracy to violate the International Emergency Economic Powers Act and the Iranian Transaction Regulations in violation of 18 U.S.C. 371	48 months in prison; 12 months of supervised release and a \$10,000,000 forfeiture (shared with RH International, P and P Computers, and Nexiant LLC)	Export of computers and equipment to Iran via the United Arab Emirates
10/18/12	RH International	One count of conspiracy to violate the International Emergency Economic Powers Act and the Iranian Transaction Regulations in violation of 50 U.S.C. 1705	12 months of unsupervised probation and a \$10,000,000 forfeiture (shared with Mohammad Reza Hajian, P and P Computers and Nexiant LLC)	Export of computers and equipment to Iran via the United Arab Emirates
10/18/12	P and P Computers	One count of conspiracy to violate the International Emergency Economic Powers Act and the Iranian Transaction Regulations in violation of 50 U.S.C. 1705	12 months of unsupervised probation and a \$10,000,000 forfeiture (shared with Mohammad Reza Hajian, RH International and Nexiant LLC)	Export of computers and equipment to Iran via the United Arab Emirates
10/18/12	Nexiant LLC	One count of conspiracy to violate the International Emergency Economic Powers Act and the Iranian Transaction Regulations in violation of 50 U.S.C. 1705	12 months of unsupervised probation and a \$10,000,000 forfeiture (shared with Mohammad Reza Hajian, P and P Computers and RH International)	Export of computers and equipment to Iran via the United Arab Emirates

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One conviction is not included in this chart because the information has been sealed by the court.

10/19/12	Edward Russo	One count of receiving stolen government property in violation of 18 U.S.C. 641	12 months and one day in prison; 36 months of supervised release; and a \$1,000 criminal fine	Export of defense items to various countries (Related to the case against Michael Bartch)
10/19/12	Mark Kamil Mrad	One count of money laundering in violation of 18 U.S.C. 1956	14 months in prison; 36 months of supervised release; a \$15,000 criminal fine; and a \$5,000 forfeiture	Export of vehicles and currency to Hezbollah
10/24/12	Susan Yip	One count of conspiracy to violate the International Emergency Economic Powers Act and the Iranian Transaction Regulations in violation of 50 U.S.C. 1705 and 22 U.S.C. 8512	24 months in prison and 36 months of supervised release	Conspiracy to export U.S origin parts to Iran
10/29/12	Fu-Tain Lu	One count of violating export regulations in violation of 50 U.S.C. 1705	15 months in prison; 36 months of supervised release; a \$5,000 criminal fine; and a forfeiture of \$136,000 in commodities	Export of microwave amplifiers to China
11/14/12	Daniel Alejandre	One count of receiving stolen government property in violation of 18 U.S.C. 641 and one count of money laundering in violation of 18 U.S.C. 1956	18 months in prison; 36 months of supervised release; and a \$1,000 criminal fine	Export of defense items to various countries (related to the case against Michael Bartch)
11/26/12	Wei Wang	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705	8 months of time served in prison and a \$9,000 criminal fine	Conspiracy to export capacitors and Thyratron tubes to Iran
11/29/12	Yusuf Patanwala	One count of illegal export of defense articles in violation of 22 U.S.C. 2778 and one count of money laundering in violation of 18 U.S.C. 1956	36 months in prison; 36 months of supervised release; a \$2,000 criminal fine; and the seizure of \$70,000 and a Mercedes vehicle	Export of defense items to various countries (related to the case against Michael Bartch)
11/30/12	Andro Telemi	One count of attempting to export defense materials on the U.S. munitions list without a license in violation of 22 U.S.C. 2778	6 months of home confinement; 60 months of probation; a \$10,000 criminal fine; and 500 hours of community service	Export of electronics to Iran via the United Arab Emirates

12/03/12	Huaxing Construction Co. Limited	One count of violating the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705 and one count of conspiracy in violation of 18 U.S.C. 371	60 months of probation and a \$2,000,000 criminal fine	Export of high-performance epoxy coatings to the Chashma II Nuclear Power Plant in Pakistan via China
12/21/12	Xun Wang	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 18 U.S.C. 371	12 months and one day in prison; 12 months of supervised release; a \$100,000 criminal fine; and 500 hours of community service	Export of high-performance epoxy coatings to the Chashma II Nuclear Power Plant in Pakistan via China
01/17/13	Timothy Gormley	Five counts of violating the International Emergency Economic Powers Act and aiding and abetting in violation of 50 U.S.C. 1705 and 18 U.S.C. 2	42 months in prison; 60 months of supervised release; and a \$1,000 fine	Export of amplifiers to various countries
01/17/13	Hong Ren	One count of making false statements in a government matter in violation of 18 U.S.C. 1001	12 months of probation; a \$5,000 criminal fine; and 100 hours of community service	Export of electronic components to China via Hong Kong
01/25/13	Joel Stone	One count of illegal export of defense articles in violation of 22 U.S.C. 2778; one count of money laundering in violation of 18 U.S.C. 1956; and one count of receiving stolen government property in violation of 18 U.S.C. 641	24 months in prison; 36 months of supervised release; and a \$1,500 criminal fine	Export of defense items to various countries (related to the case against Michael Bartch)
01/30/13	Iman Kazerani	One count of violating the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705	36 months of probation and a \$10,000 criminal fine	Export of a computer to Iran via the United Arab Emirates
02/06/13	Volha Dubouskaya	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705	6 months in prison; 36 months of supervised release; and a \$3,000 criminal fine	Export of cameras, night vision and optical devices to Belarus
02/08/13	Steve Stancil	One count of theft of attempted trade secrets in violation of 18 U.S.C. 1832	5 months in prison; 36 months of supervised release; five months of home confinement; and 200 hours of community service	Theft of trades secrets and attempted sale to companies in Korea and China

02/14/13	Vitali Tsishuk	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705; conspiracy to export defense articles without a license in violation of 18 U.S.C. 371; and one count of conspiracy to launder monetary instruments in violation of 18 U.S.C. 1956	24 months in prison and 24 months of supervised release	Export of cameras, night vision and optical devices to Belarus
02/19/13	Saeed Talebi	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 18 U.S.C. 371	12 months and one day in prison	Export of turbine control system replacement parts to Iran
02/28/13	Aliaksandr Stashynski	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705	6 months in prison; 36 months of supervised release; and a \$3,000 criminal fine	Export of cameras, night vision and optical devices to Belarus
03/18/13	George Gerdak	One count of money laundering in violation of 18 U.S.C. 1956	Time served in prison; 24 months of supervised release; 12 months of home confinement; and a \$8,380 forfeiture	Export of used vehicles to West Africa
03/29/13	Frances Chen	One count of attempting to violate the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705	9 months of time served in prison	Attempted export of carbon fiber to China via Taiwan
04/17/13	Mojtaba Atarodi	Eight counts of smuggling goods in violation of 18 U.S.C. 554; one count of conspiracy to violate the Iran embargo in violation of 50 U.S.C. 1705; and eight counts of conspiracy to export goods without a license in violation of 50 U.S.C. 1705	Time served in prison; 36 months of supervised release; and 40 hours of community service	Export of electronic test equipment to Iran.
04/17/13	Michael Bartch Sr.	One count of receiving stolen property in violation of 18 U.S.C. 641; one count of money laundering in violation of 18 U.S.C. 1956; and one count of illegal export of defense articles in violation of 22 U.S.C. 2778	24 months in prison; 24 months of supervised release; and a \$3,000 criminal fine	Export of defense items to various countries
04/30/13	Danny Chin Hao Hsu	One count of mail fraud in violation of 18 U.S.C. 1341 and one count of misuse of a Shipper's Export Declaration in violation of 13 U.S.C. 305	36 months in prison and a \$5,000 criminal fine	Export of "high-end" automobiles to China

04/30/13	Frank Hsiao Chien Ku	One count of mail fraud in violation of 18 U.S.C. 1341 and one count of misuse of a Shipper's Export Declaration in violation of 13 U.S.C. 305	36 months in prison and a \$5,000 criminal fine	Export of "high-end" automobiles to China
05/02/13	Volodymr Ponomarenko	One count of conspiracy to violate the Arms Export Control Act in violation of 18 U.S.C. 371	24 months in prison; 36 months of supervised release; and a \$12,000 forfeiture	Conspiracy to export riflescopes to Ukraine
05/22/13	Michael Xie	One count of violating the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705 and one count of violating the Arms Export Control Act in violation of 22 U.S.C. 2778	24 months of probation; a \$20,000 criminal fine; and 300 hours of community service	Export of electronic components to China via Hong Kong
06/03/13	Paul Beagle	One count of receiving stolen government property in violation of 18 U.S.C. 641	15 months in prison; 36 months of supervised release; and a \$1,000 criminal fine	Export of defense articles to various countries (related to the case against Michael Bartch)
06/12/13	Markos Baghdasarian	One count of violating the Iranian embargo in violation of 50 U.S.C. 1705; one count of making false statements in AES in violation of 18 U.S.C. 1001; and one count of conspiracy to violate the International Emergency Economic Powers Act and defrauding the U.S. Government in violation of 18 U.S.C. 371	36 months in prison and 36 months of supervised release	Export of polymer oil additives to Iran.
06/13/13	Scott Whittington	One count of smuggling goods from the United States in violation of 18 U.S.C. 554; one count of receipt or possession of an unregistered firearm in violation of 26 U.S.C. 5841; and one count of embezzlement of government property in violation of 18 U.S.C. 641	120 months in prison and a \$2,000,000 forfeiture of firearms	Export of a night vision weapon sight
06/27/13	Billy Powell, Sr.	One count of violating the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705	Time served in prison and a \$150,000 criminal fine	Export of oil field equipment to Iran via the United Arab Emirates

07/18/13	Aliaksandr Belski	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705; and one count of conspiracy to export defense articles without a license in violation of 18 U.S.C. 371; and one count of conspiracy to launder monetary instruments in violation of 18 U.S.C. 1956	57 months in prison; 24 months of supervised release; and a \$3,000 criminal fine	Export of cameras, night vision and optical devices to Belarus
08/14/13	Amin Ghorashi	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 18 U.S.C. 371	30 months in prison; a \$100,000 criminal fine and a \$54,318 forfeiture	Export of goods, technology and electronics to Iran
08/21/13	Ernest Chornoletskyy	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705 and one count of conspiracy to export defense articles without a license in violation of 18 U.S.C. 371	15 months in prison; 36 months of supervised release; and a \$3,000 criminal fine	Export of cameras, night vision and optical devices to Belarus
08/23/13	Hani Wahbi	One count of making false statement to a law enforcement officer in violation of 18 U.S.C. 1001	24 months of probation and a \$7,500 criminal fine	Export of computer-related equipment to Sudan
08/23/13	Khalid Elhaj	One count of making false statement to a law enforcement officer in violation of 18 U.S.C. 1001	24 months of probation and a \$7,500 criminal fine	Export of computer-related equipment to Sudan
08/23/13	Mikail Ghahremani	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 18 U.S.C. 371 and 50 U.S.C. 1705	8 months of time served in prison and 24 months of supervised release	Conspiracy to export computer-related goods, electronic equipment and cameras to Iran via the United Arab Emirates
08/27/13	Business Machinery World Wide (BMWW)	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705	5 months of probation; a \$50,000 criminal fine; and a \$1,000,000 forfeiture (shared with Ariana General Trading LLC and Servex DWC LLC)	Conspiracy to export computer-related goods, electronic equipment and cameras to Iran via the United Arab Emirates
08/27/13	Ariana General Trading LLC	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705	5 months of probation; a \$50,000 criminal fine; and a \$1,000,000 forfeiture (shared with Business Machinery World Wide and Servex DWC LLC)	Conspiracy to export computer-related goods, electronic equipment and cameras to Iran via the United Arab Emirates

08/27/13	Servex DWC LLC	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705	5 months of probation; a \$50,000 criminal fine; and a \$1,000,000 forfeiture (shared with Ariana General Trading LLC and Business Machinery World Wide)	Conspiracy to export computer-related goods, electronic equipment and cameras to Iran via the United Arab Emirates
09/13/13	Mostafa Tehrani	One count of exporting goods to Iran without authorization in violation of 50 U.S.C. 1702 and 1705	24 months of probation and 20 hours of community service	Export of fasteners, o-rings and other items to Iran
09/16/13	Omidreza Khademi	One count of conspiracy to violate the International Emergency Economic Powers Act and the Iranian Transaction Regulations in violation of 18 U.S.C. 371	29 months in prison and a \$4,400 forfeiture	Export of laptop computers, analog input boards, and a side-scan system to Iran via Hong Kong
09/20/13	Kow Lim Seng	One count of conspiracy to defraud the United States in violation of 18 U.S.C. 371	37 months in prison and 36 months of supervised release	Export of military antennas to Singapore and Hong Kong
09/20/13	Soo Gan Benson Hia	One count of conspiracy to defraud the United States in violation of 18 U.S.C. 371	34 months in prison and 36 months of supervised release	Export of military antennas to Singapore and Hong Kong
09/23/13	CTS Middle East	One count of smuggling goods from the United States in violation of 18 U.S.C. 554	36 months of probation and a \$48,000 criminal fine	Export of oil field equipment to Iran
09/25/13	Peyman Azimi	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705	Time served in prison; 36 months of supervised release; a \$25,000 criminal fine; and a \$1,700 forfeiture	Export of goods, technology and electronics to Iran
09/26/13	Hong II Ha	One count of conspiracy to violate the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705 and one count of violating the International Emergency Economic Powers Act in violation of 50 U.S.C. 1705	5 months of time served in prison	Export of carbon fiber to China and Iran via Luxembourg and Belgium

Table 2
Department of Commerce Export Enforcement Administrative Cases During Fiscal Year 2013

Order Date	Respondent	Charges	Sections Violated [number of charges]	Result
10/16/12	Micei International	Caused, aided, or abetted violations of a denial order in connection with the export or attempted export of various items, and acted with knowledge that violations of the Export Administration Regulations ("EAR" or "Regulations") would occur. (EAR 99)	764.2(b) [7] 764.2(e) [7]	Settlement Agreement – implement an export control management and compliance program within six months and complete two annual audits of its compliance with U.S. export control laws. (Litigated case. Petition for review dismissed with prejudice).
10/23/12	Littelfuse, Inc.	Exported liquid crystal polymer controlled for national security reasons to the Philippines without the required licenses. (ECCN 1C008.b)	764.2(a) [37]	Settlement Agreement – civil penalty of \$180,000.
11/28/12	Kue Sang Chun	Underlying criminal conviction for knowingly exporting and causing the export from the United States to South Korea of infrared focal plane array detectors and camera engines.	Section 38 of the AECA	Export privileges denied until November 10, 2016, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
12/03/12	China Nuclear Industry Huaxing Construction Co., Ltd.	Conspired to export high performance epoxy paint and epoxy paint thinner (certified as meeting "Level 1" nuclear industry standards) for use in the reactor and core of a nuclear power plant under construction in Pakistan and under the ownership and control of the Pakistan Atomic Energy Commission (PAEC), an entity on the BIS Entity List, without the required license; acted with knowledge that violations would occur in connection with two exports of the items to the PAEC. (EAR99)	764.2(d) [1] 764.2(e) [3]	Settlement Agreement (after filing of charging letter) – civil penalty of \$1,000,000; five year suspended denial of export privileges; implement an internal export controls compliance program within 180 days and complete two external audits of its export controls compliance program.

36

12/3/12	Enterysys Corporation	Took actions with intent to evade the Regulations in connection with the unlicensed export to India of ceramic cloth controlled on national security grounds and exported the ceramic cloth to India without the required license; exported electronic components to Bharat Dynamics Limited in Hyderabad, India, an entity on the BIS Entity List, without the required licenses on eleven occasions, and acted with knowledge that violations would occur in connection with three of the exports to that listed entity. (ECCN 1C010, EAR99)	764.2(h) [1] 764.2(a) [12] 764.2(e) [3]	Final Order issued by the Under Secretary – export privileges denied for ten years. (Default Order).
12/07/12	Capintec, Inc.	Exported a dose calibrator to the Pakistan Atomic Energy Commission ("PAEC"), an entity on the BIS Entity List, without the required license. (EAR99)	764.2(a) [1]	Settlement Agreement – civil penalty of \$23,000.
12/20/12	Temrex Corporation	Temrex sold Tofflemire matrix bands for export from the United States to Iran via the United Arab Emirates without the required U.S. Government authorization and with knowledge that a violation would occur. (EAR99)	764.2(a) [1]	Settlement Agreement – civil penalty of \$8,750.
12/20/12	Jackie Prather	Caused, aided or abetted the attempted export of Tofflemire matrix bands from the United States to Iran via the United Arab Emirates without the required U.S. Government authorization. (EAR99)	764.2(b) [1]	Settlement Agreement – civil penalty of \$5,250.
12/20/12	Ethan Levander	Made false or misleading statements to BIS in the course of an investigation.	764.2(g) [1]	Settlement Agreement – civil penalty of \$5,250.
12/21/12	Emenike Nwankwoala	Underlying criminal conviction for knowingly and willfully exporting, causing to be exported, and attempting to export from the United States to Nigeria, defense articles included on the United States Munitions List, namely, firearms and ammunition, and shotguns.	Section 38 of the AECA and IEEPA	Export privileges denied until January 3, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).

12/21/12	Boniface U. Ibe	Underlying criminal conviction for knowingly and willfully exporting, causing to be exported, and attempting to export from the United States to Nigeria, defense articles included on the United States Munitions List, namely, firearms and ammunition, and shotguns.	Section 38 of the AECA and IEEPA	Export privileges denied until July 11, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
12/21/12	Henson Chua, and related person Celltron Marketing Company, a/k/a Celltron Mktg. Co.	Underlying criminal conviction for knowingly and willfully causing the temporary import into the United States of an unmanned aerial vehicle designated as a defense article on the United States Munitions List, without having first obtained the required license from the U.S. Department of State.	Section 38 of the AECA	Export privileges of Henson Chua denied until November 8, 2016, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA); combined with the naming and addition of Celltron Marketing Company as a Related Person.
01/14/13	Jerome Stuart Pendzich	Underlying criminal conviction for knowingly and willfully attempting to export to Colombia Level IV Ballistics Small Arms Protective Inserts (SAPI) designated as defense articles on the United States Munitions List, without first having obtained the required license from the U.S. Department of State.	Section 38 of the AECA	Export privileges denied until October 12, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
01/14/13	James Allen Larrison	Underlying criminal conviction for knowingly and willfully attempting to export, causing the attempted export, and causing the attempted supply to Iran of two camera control box, 8-port multiple television camera control delegation switches, without obtaining the required authorization from the Treasury Department's Office of Foreign Assets Control.	IEEPA	Export privileges denied until June 23, 2016, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).

02/04/13	Mahan Airways; Zarand Aviation a/k/a GIE Zarand Aviation; Gatewick LLC; Pejman Mahmood Kosarayanifard a/k/a Kosarian Fard; Mahmoud Amini; Kerman Aviation a/k/a GIE Kerman Aviation; Sirjanco Trading LLC; Ali Eslamian; Mahan Air General Trading LLC; Skyco (UK) Ltd.; Equipco (UK) Ltd.; and Mehdi Bahrami	Temporary denial order (TDO) originally issued based on showing of imminent violations in matter involving the re-export of three U.Sorigin Boeing 747 aircraft to Iran and the intended re-export of three additional 747s, false statements to BIS regarding the ultimate destination and enduser of the aircraft, and a failure to comply with a BIS order to return the three additional aircraft to the U.S. This matter also has involved exports or reexports of a McDonnell Douglas MD-82, Airbus aircraft with U.S-origin engines, and other items subject to the Regulations.		TDO Renewal. Order issued renewing denial of export privileges for 180 days and adding Mehdi Bahrami as a related party.
02/08/13	Connor Hayden Kraegel	Underlying criminal conviction of knowingly and willfully exporting from the United States night vision goggles designated as a defense article on the United States Munitions list.	Section 38 of the AECA	Export privileges denied until August 24, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
03/08/13	Vantec World Transport (USA), Inc.	Caused, aided, and abetted the export of an atmospheric testing device and associated antennae and cables to the Pakistan Space and Upper Atmosphere Research Commission (SUPARCO), an entity on the BIS Entity List, without the required BIS licenses. (EAR99)	764.2(b) [2]	Settlement Agreement – civil penalty of \$40,000, all of which is suspended.
03/12/13	Dan Tran Dang	Underlying criminal conviction for willfully exporting and aiding and abetting the export from the United States to Vietnam of night vision goggles.	Section 38 of the AECA	Export privileges denied until April 17, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).

03/15/13	University of Massachusetts at Lowell	Exported an atmospheric testing device and related antennae and cables to the Pakistan Space and Upper Atmosphere Research Commission (SUPARCO), an entity on the BIS Entity List, without the required licenses. (EAR99)	764.2(a)[2]	Settlement Agreement – civil penalty of \$100,000, all of which is suspended.
03/15/13	Aeroships International, Inc.	Caused, aided, and abetted the export of a 125 kilowatt generator to Prime International, an entity in Pakistan listed on the BIS Entity List. (EAR99)	764.2(b)[1]	Settlement Agreement – complete an export compliance training course or program on the Regulations within six months; and export privileges denied four years, with the denial period suspended.
03/21/13	RH International, LLC, and related person Mohammad Reza (a/k/a Ray) Hajian	Underlying criminal conviction for knowingly and willfully conspiring with other individuals to violate IEEPA and the Iranian Transactions and Sanctions Regulations by exporting computer and related equipment from the United States to Iran, via the United Arab Emirates ("U.A.E."), without having obtained the required license from the Treasury Department's Office of Foreign Assets Control (OFAC).	IEEPA	Export privileges denied until October 18, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
03/22/13	Nexiant	Underlying criminal conviction for knowingly and willfully conspiring with other individuals to violate IEEPA and the Iranian Transactions and Sanctions Regulations by exporting computer and related equipment from the United States to Iran, via the U.A.E., without having obtained the required license from OFAC.	IEEPA	Export privileges denied until October 18, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).

03/22/13	P&P Computers	Underlying criminal conviction for knowingly and willfully conspiring with other individuals to violate IEEPA and the Iranian Transactions and Sanctions Regulations by exporting computer and related equipment from the United States to Iran, via the U.A.E., without having obtained the required license from OFAC.	IEEPA	Export privileges denied until October 18, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
03/22/13	Richard Phillips	Underlying criminal conviction for knowingly, intentionally and willfully attempting to export, reexport, and sell and supply, directly and indirectly, a spindle of Carbon Fiber from the United States to Iran without having obtained the required license from OFAC.	IEEPA	Export privileges denied until June 21, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
03/22/13	Xiaoming ("Sam") Wang and Qualitech Enviro- Instrument Company	Exported NS-controlled phase synthesizers to the People's Republic of China without the required BIS licenses. (ECCN 3A002.b)	764.2(a) [2]	Settlement Agreement – civil penalty of \$35,000, all of which is suspended; export privileges denied for five years, all of which is suspended.
04/02/13	Andro Telemi, a/k/a Andre Telimi, a/k/a Andre Telemi	Underlying criminal conviction for knowingly and willfully attempting to export from the United States to Iran ten connector adapters designated as defense articles on the United States Munitions List, without having obtained the required license from the U.S. Department of State.	Section 38 of the AECA	Export privileges denied until November 30, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
04/02/13	Liem Duc Huynh, a/k/a Duc Huynh	Underlying criminal conviction for willfully exporting and aiding and abetting the export from the United States to Vietnam of night vision goggles designated as defense articles on the United States Munitions List, without having obtained the required license from the U.S. Department of State.	Section 38 of the AECA	Export privileges denied until April 17, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).

04/24/13	Computerlinks FZCO	Took actions to evade the Regulations in connection with the unlawful export and reexport to Syria of equipment and software designed for use in monitoring and controlling Web traffic controlled for National Security and Anti-Terrorism reasons and as Encryption Items, and valued at approximately \$1,400,000. (ECCNs 5A002, 5D002)	764.2(h) [3]	Settlement Agreement – civil penalty of \$2,800,000; complete three external audits of its export control compliance program (one retrospective audit and two prospective audits); and hire an unaffiliated third-party consultant with expertise in U.S. export controls laws to conduct the external audits.
05/23/13	Solenta Aviation (Pty) Ltd.	Reexported AT-controlled Beechcraft aircraft from South Africa to Sudan pursuant to a lease agreement without the required BIS licenses. (ECCN 9A991)	764.2(a) [1]	Settlement Agreement – civil penalty of \$70,000, of which \$30,000 is suspended.
06/17/13	Lee Roy Perez	Underlying criminal conviction for knowingly and willfully exporting, causing to be exported, and attempting to export and cause to be exported from the United States to Mexico rifles designated as defense articles on the United States Munitions List, without having obtained the required license from the U.S. Department of State.	Section 38 of the AECA	Export privileges denied until December 13, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
06/17/13	Placido Molina, Jr.	Underlying criminal conviction for knowingly and willfully attempting to export and causing to be exported from the United States to Mexico two AK-47 semi-automatic rifles designated as defense articles on the United States Munitions List, without having obtained the required license from the U.S. Department of State.	Section 38 of the AECA	Export privileges denied until March 2, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
06/17/13	Mario Julian Martinez- Bernache	Underlying criminal conviction for knowingly and willfully attempting to export and causing to be exported from the United States to Mexico 5,000 rounds of ammunition designated as defense articles on the United States Munitions List, without having obtained the required license from the U.S. Department of State.	Section 38 of the AECA	Export privileges denied until March 15, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).

06/17/13	Jose Guadalupe Reyes-Martinez	Underlying criminal conviction for knowingly and willfully exporting, causing to be exported, and attempting to export and cause to be exported from the United States to Mexico 1,802 rounds of 7.62x51mm caliber ammunition designated as defense articles on the United States Munitions List, without having obtained the required license from the U.S. Department of State.	Section 38 of the AECA	Export privileges denied until November 21, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
06/17/13	Juan Ricardo Puente-Paez	Underlying criminal conviction for knowingly and willfully exporting, attempting to export, and causing to be exported from the United States to Mexico four military specification Interceptor body armor vests designated as defense articles on the United States Munitions List, without having obtained the required license from the U.S. Department of State.	Section 38 of the AECA	Export privileges denied until May 29, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
06/17/13	Manuel Mario Pavon	Underlying criminal conviction for knowingly and willfully exporting, causing to be exported, and attempting to export and cause to be exported from the United States to Mexico seventy AK47 magazines designated as defense articles on the United States Munitions List, without having obtained the required license from the U.S. Department of State.	Section 38 of the AECA	Export privileges denied until January 13, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
06/17/13	Juan Narcizo Oyervides- Campos	Underlying criminal conviction for knowingly and willfully exporting, causing to be exported, and attempting to export and attempting to cause to be exported from the United States to Mexico thirteen semiautomatic rifles designated as defense articles on the United States Munitions List, without having obtained the required license from the U.S. Department of State.	Section 38 of the AECA	Export privileges denied until November 21, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).

06/17/13	Mario Salinas- Lucio	Underlying criminal conviction for knowingly and willfully attempting to export and causing to be exported from the United States to Mexico 1,947 rounds of .223 caliber ammunition designated as defense articles on the United States Munitions List, without having obtained the required license from the U.S. Department of State.	Section 38 of the AECA	Export privileges denied until January 9, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
06/17/13	Gerardo Domingo Rodriguez- Rivera	Underlying criminal conviction for knowingly and willfully exporting, causing to be exported, and attempting to export and cause to be exported from the United States to Mexico seventy AK-47 magazines designated as defense articles on the United States Munitions List, without having obtained the required license from the U.S. Department of State.	Section 38 of the AECA	Export privileges denied until January 13, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
06/17/13	Jose Arturo Ramon-Herrada	Underlying criminal conviction for knowingly and willfully conspiring to export and causing to be exported from the United States to Mexico 17,500 cartridges of ammunition designated as defense articles on the United States Munitions List, without having obtained the required license from the U.S. Department of State.	Section 38 of the AECA	Export privileges denied until February 24, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).

06/19/13	Enterysys Corporation and related person Shekar Babu, a/k/a Bob Babu	Related Person under Section 766.23 of the EAR to Enterysys Corporation ("Enterysys"). A denial order issued against Enterysys effective December 14, 2012, for taking actions with intent to evade the Regulations in connection with the unlicensed export to India of ceramic cloth controlled on national security grounds and exporting the ceramic cloth to India without the required license; exporting electronic components to Bharat Dynamics Limited in Hyderabad, India, an entity on the BIS Entity List, without the required BIS licenses on eleven occasions; and acting with knowledge that violations would occur in connection with three of the exports to that listed entity. (ECCN 1C010, EAR99)		Added Shekar Babu, a/k/a Bob Babu, as a Related Person to the December 3, 2012 denial order against Enterysys Corporation., which is scheduled to remain in effect until December 14, 2022.
06/19/13	Billy L. Powell, Sr.	Sold or transferred various oil and gas equipment parts that were exported or to be exported from the United States to Iran, via transshipment through the United Arab Emirates, with knowledge that violations of the Regulations would occur. (EAR99)	764.2(e) [50]	Settlement Agreement – civil penalty of \$100,000; export privileges denied for five years.
06/21/13	Stemcor USA, Inc.	Attempted to export scrap steel to People's Steel Mills in Pakistan, an entity listed on the BIS Entity List, without the required BIS license. (EAR99)	764.2(c)[1]	Settlement Agreement – civil penalty of \$35,000; complete export compliance training on the Regulations within twelve months.
07/09/13	Orville L. Parker, Jr.	Exported a thermal imaging camera to Germany without the required license; failed to file a Shipper's Export Declaration or Automated Export System record with the U.S. Government. (ECCN 6A003.b.4)	764.2(a) [2]	Settlement Agreement – export privileges denied for 10 years.
07/16/13	Harold Hanson	Made false or misleading statements to the U.S. Government in the course of an investigation.	764.2(g) [1]	Settlement Agreement – export privileges denied for 15 years.

07/16/13	Yaming Nina Qi Hanson	Made false or misleading statements to the U.S. Government in the course of an investigation.	764.2(g) [1]	Settlement Agreement – export privileges denied for 15 years.
07/21/13	Chan Heep Loong	Caused the export of GPS engines and a peak power meter to Iran via transshipment through Singapore without the required U.S. Government authorizations; violated the terms of a denial order. (ECCN 7A994, 3A992, EAR99)	764.2(b) [2] 764.2(k) [1]	Final Order issued by the Under Secretary – export privileges denied for ten years. (Default Order).
07/31/13	Mahan Airways; Zarand Aviation a/k/a GIE Zarand Aviation; Gatewick LLC; Pejman Mahmood Kosarayanifard a/k/a Kosarian Fard; Mahmoud Amini; Kerman Aviation a/k/a GIE Kerman Aviation; Sirjanco Trading LLC; Ali Eslamian; Mahan Air General Trading LLC; Skyco (UK) Ltd.; Equipco (UK) Ltd.; and Mehdi Bahrami	Temporary denial order (TDO) originally issued based on showing of imminent violations in matter involving the re-export of three U.Sorigin Boeing 747 aircraft to Iran and the intended re-export of three additional 747s, false statements to BIS regarding the ultimate destination and enduser of the aircraft, and a failure to comply with a BIS order to return the three additional aircraft to the U.S. This matter also has involved exports or reexports of a McDonnell Douglas MD-82, Airbus aircraft with U.S-origin engines, and other items subject to the Regulations.		TDO Renewal. Order issued renewing denial of export privileges for 180 days.
08/08/13	Stephen Glen Guerra	Underlying criminal conviction for intentionally and knowingly conspiring with persons known and unknown to knowingly and willfully export and attempt to export to Mexico several AK-47 type rifles and magazines, without having first obtained a Department of State license for such export.	Section 38 of the AECA	Export privileges denied until February 6, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).

08/13/13	Adrian Jesus Reyna	Underlying criminal conviction for intentionally and knowingly conspiring with persons known and unknown to knowingly and willfully export and attempt to export to Mexico several AK-47 type rifles and magazines, without having first obtained a Department of State license for such export.	Section 38 of the AECA	Export privileges denied until January 27, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
08/13/13	Arturo Guillermo Nino	Underlying criminal conviction for intentionally and knowingly conspiring with persons known and unknown to knowingly and willfully export and attempt to export to Mexico several AK-47 type rifles and magazines, without having first obtained a Department of State license for such export.	Section 38 of the AECA	Export privileges denied until June 12, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
09/13/13	Network Hardware Resale, LLC	Reexported U.Sorigin networking equipment and related accessories to Iran, Syria and Sudan without the required licenses. (ECCN 5A002, 5A991)	764.2(a) [16]	Settlement Agreement – civil penalty of \$262,000.
09/18/13	Sixing Liu	Underlying criminal conviction for knowingly and willfully exporting and attempting to export to the People's Republic of China defense articles, specifically, technical data on the United States Munitions List related to fire control, range finder, optical, and guidance and control equipment, without having first obtained a Department of State license for such export.	Section 38 of the AECA	Export privileges denied until March 26, 2023, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
09/19/13	Iman Kazerani	Underlying criminal conviction for knowingly and willfully exporting and causing the exportation of laptop computers from the United States to Iran without having first obtained the required licenses or authorizations from OFAC.	IEEPA	Export privileges denied until January 30, 2018, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).

09/23/13	KMT GmbH	Took actions to evade the Regulations in connection with the attempted unauthorized export to Iran, via transshipment through Germany, of nine high pressure water pumps destined for use in the South Pars Industrial Complex, an energy field involved in Iran's oil and petrochemical industry. (EAR99)	764.2(h) [1]	Settlement Agreement – civil penalty of \$125,000 for which KMT GmbH and KMT Group AB shall be jointly and severally liable; complete an external audit of the export controls compliance programs of all of KMT's operating entities worldwide, including KMT foreign subsidiaries and affiliates, and KMT shall not contest any forfeiture proceedings by the U.S. Government involving the items at issue.
09/25/13	Andrew Silcox	Underlying criminal conviction for knowingly and willfully exporting a naval radar control unit, which is also known as a sensitivity time control generator assembly and is designated as a defense article on the United States Munitions List, without having first obtained a State Department license for such export.	Section 38 of the AECA	Export privileges denied until March 1, 2022, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
09/25/13	Vikramaditya Singh	Underlying criminal conviction for of knowingly and willfully causing and attempting to cause the export of digital microwave radios to Iran without the required authorization from OFAC.	IEEPA	Export privileges denied until March 3, 2021, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
09/25/13	Volha Dubouskaya	Underlying criminal conviction for conspiring with others known and unknown to export to Belarus export-controlled items, including but not limited to handheld thermal imaging cameras, without first obtaining the required Department of Commerce license.	IEEPA	Export privileges denied until February 6, 2023, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).
09/26/13	Timothy Gormley	Underlying criminal conviction for engaging in transactions relating to exporting amplifiers to China and India without obtaining the required licenses.	IEEPA	Export privileges denied until January 17, 2023, pursuant to Section 766.25 of the EAR (see also Section 11(h) of the EAA).

09/26/13	United Medical Instruments, Inc.	Conspired to export ultrasound equipment and related accessories through Belgium to Iran without the required license; acted with knowledge of a violation in selling medical equipment to Iran without a license; failed to file Shipper's Export Declarations or Automated Export System Records; made misrepresentation on a Shipper's Export Declaration concerning the value of exported items. (EAR99)	764.2(d) [1] 764.2(e) [16] 764.2(a) [5] 764.2(g) [1]	Settlement Agreement - civil penalty of \$500,000, all of which is suspended; implement an internal export compliance program within 30 days; complete export control compliance training on the Regulations within six months; and a two-year suspended denial of export privileges.
09/26/13	Afshin ("Sean") Naghibi	Conspired to export ultrasound equipment and related accessories through Belgium to Iran without the required license; took actions to evade the Regulations in selling medical equipment to Iran without a license. (EAR99)	764.2(d) [1] 764.2(h) [16]	Settlement Agreement – civil penalty of \$800,000, of which \$763,000 is suspended; six year denial of export privileges.
09/30/13	Total Cargo Logistics, Inc.	Caused, aided or abetted the export of PVC cement and primer cleaners to Syria without the required license. (EAR99)	764.2(b) [1]	Settlement Agreement – civil penalty of \$27,000.
09/30/13	Tysonic Enterprises	Matter resolved by adding Tysonic Enterprises as a related person under Section 766.23 of the EAR to the Chan Heep Loong ("Loong") denial order. A denial order issued against Loong effective July 21, 2013, for causing the export of GPS engines and a peak power meter to Iran via transshipment through Singapore without the required U.S. Government authorizations, and for violating the terms of a denial order. (ECCN 7A994, 3A992, EAR99)		Export privileges denied until July 29, 2023.

Table 3
Summary of Antiboycott Cases Closed in Fiscal Year 2013

Company Name & Location	Date Order Signed	Alleged Violations	Settlement Amount
Climax Molybdenum Marketing Company Phoenix, AZ	11/09/12	1 X 760.2(d) Furnishing information about business relationships with or in a boycotted country	\$9,000
		2 X 760.5 Failure to report receipt of a boycott request in a timely manner	
International Veneer Company, Inc.South Hill, VA	12/19/12	7 X 760.5 Failure to report receipt of a boycott request in a timely manner	\$12,600
BAC Florida Bank Coral Gables, FL	04/05/13	16 X 760.2(d) Furnishing information about business relationships with or in a boycotted country	\$52,380
Baker Eastern, SA Tripoli, Libya	06/12/13	22 X 760.2(a) Refusal to do business  44 X 760.2(d) Furnishing information about business relationships with or in a boycotted country	\$182,325

Company Name & Location	Date Order Signed	Alleged Violations	Settlement Amount
Laptop Plaza Inc. (aka IWEBMASTER.NET INC) Doral, FL	09/07/13	4 X 760.2(d) Furnishing information about business relationships with or in a boycotted country	\$48,800
		3 X 764.2(i) Failure to Comply with Recordkeeping Requirements by Failing to Retain and/or Produce Records	
Leprino Foods Company Denver, CO	09/16/13	1 X 760.2(d) Furnishing information about business relationships with or in a boycotted country	\$32,000
		15 X 760.5 Failure to report receipt of a boycott request in a timely manner	
Digi-Key Corporation Thief River Falls, MN	09/13/13	5 X 760.2(d) Furnishing information about business relationships with or in a boycotted country	\$56,600
		58 X 760.5 Failure to report receipt of a boycott request in a timely manner	

Company Name & Location	Date Order Signed	Alleged Violations	Settlement Amount
AIX Global LLC Nashville, TN	09/27/13	1 X 760.2(a) Refusal to do business	\$15,000
		1 X 760.2(d) Furnishing information about business relationships with or in a boycotted country	
		1 X 760.5 Failure to report receipt of a boycott request in a timely manner	

Appendix D:
Boycott Requests reported to the
Office of Antiboycott Compliance, U.S. Department of Commerce

Country	Prohibited Boycott Requests	Permissible Boycott- Related Requests	Amended Boycott Requests	Boycott Exceptions	Totals
Algeria	0	0	0	2	2
Bahrain	5	9	2	1	17
Iraq	72	1	5	6	84
Jordan	0	1	0	0	1
Kuwait	5	0	1	8	14
Lebanon	5	15	0	4	24
Libya	6	28	2	2	38
Oman	6	12	6	5	29
Qatar	10	50	4	34	98
Saudi Arabia	27	1	2	7	37
Syria	5	0	0	0	5
United Arab Emirates	92	58	11	102	263
Yemen	1	3	0	0	4
Total (Arab League members)	234	178	33	171	616
Bangladesh	0	1	1	17	19
Iran	0	0	0	0	0
Malaysia	0	1	0	91	92
Nigeria	0	0	0	0	0
Pakistan	4	4	0	30	38
All other Countries	4	3	2	9	18
Total (All counties & Arab League members)	242	187	36	318	783

**Prohibited requests** describe those requests to take an action that would be prohibited under Section 760.2 of the EAR, mainly actions to enforce the secondary and tertiary aspects of a foreign unsanctioned boycott.

**Permissible boycott-related requests** are for actions that fall outside the prohibitions of the EAR but nonetheless still require compliance with some level of a foreign unsanctioned boycott.

**Amended requests** were ones that were prohibited as an initial matter but were subsequently adjusted and reclassified as permissible requests or as exceptions under the EAR.

**Exceptions** are requests to take actions that would be prohibited, but for a specific provision in the EAR that allows the actions.

Appendix E: Approved Applications for Country Group D:1 and Cuba Fiscal Year 2013

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
ALBANIA			
EAR99 3A231 5A002 5D002 6A003	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC SOFTWARE FOR INFORMATION SECURITY	1 1 6 5 1	\$8,320 \$2,450,000 \$46,002 \$51,006 \$19,872
ARMENIA			
0A984 0A987 3E001 3E002 4D001 4D002 4E001 5A002 5D001 5D002 5E001 6A003	TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ SOFTWARE FOR INFORMATION SECURITY	2 2 1 2 2 2 1	\$1,000 \$840 \$2 \$2 \$2 \$1 \$2 \$169,732 \$2 \$0 \$2 \$15,000
AZERBAI	JAN		
0A987 1A004 1A007 2A983 2B350 2D983 2E983 3A101 3A231 3A233 3A981 3D101 3D980 4D001	EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT EQUIPMENT CONTROLLED BY 2A983 SOFTWARE CONTROLLED BY 2D983 ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 NEUTRON GENERATOR SYSTEMS INCLUDING TUBES MASS SPECTROMETERS POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A	2 1 1 1 2 1 1 8 3 1 1 1 1	\$2,099 \$1,457,625 \$9,850,000 \$4,979,047 \$15,360 \$1,000 \$26,870 \$5,290,771 \$3,241,200 \$133,229 \$9,900 \$10,000 \$1

CCL	DESCRIPTION	APPLICATIONS	
5A002 5D002	SOFTWARE FOR INFORMATION SECURITY TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0	7 6	\$1 \$601,681 \$580,575 \$3 \$2,739 \$12,372
BELARUS			
1A004 1C006 2A983 3A001 3E001 3E002 4D001 4D002 4E001	OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ SOFTWARE FOR INFORMATION SECURITY TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT CAMERAS	2 3 2 3 7 2 5	\$216,199 \$870 \$14 \$4,124,200 \$105,300 \$2 \$2 \$3 \$2 \$3 \$317,524 \$2 \$13,338 \$2 \$0 \$97,120 \$4,106
BURMA			
	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC INFORMATION SECURITY EQUIPMENT	9 13 9 3 9	\$0 \$2,721,558 \$22,500 \$9 \$1,088,550
	TOTAL CCL'S: 5		

TOTAL CCL'S: 5
TOTAL DOLLAR VALUE: \$3,832,617

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
CAMBOD:	A		
1 2 9 8 5	FINGERPRINTING POWDERS, DYES, AND INKS	1	\$20,000
	ANIMAL PATHOGENS	1	\$250
	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC		\$5
	SOFTWARE FOR INFORMATION SECURITY	1	\$6
	INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT		\$2,300,000
9A018		1	\$158,747
	TOTAL APPLICATIONS: 5 TOTAL CCL'S: 6		
	TOTAL DOLLAR VALUE: \$2,479,008		
CHINA			
		0.0	40.040.550
EAR99		39	\$9,210,573
	SHOTGUN SHELLS (EXCEPT BUCKSHOT SHELLS) AND PARTS		\$64
	OPTICAL SIGHTING DEVICES FOR FIREARMS	22	\$7,141,828
	COMMODITY SUBJECT TO EAR NOT LISTED IN GROUP E		\$1,000
	COMPOSITE STRUCTURES OR LAMINATES	1	\$3 \$13,399,415
	PROTECTIVE AND DETECTION EQUIPMENT DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES	116 1	
	SPECIFIC PROCESSING EQUIPMENT, N.E.S	4	\$49,600 \$17,337
	CONTINUOUS MIXERS	1	\$835,745
	FLUID ENERGY MILLS	2	\$247,884
	FLUIDS AND LUBRICATING MATERIALS	18	\$869,265
	CERAMIC BASE AND PRECURSOR MATERIALS	1	\$2,396
	NON-FLUORINATED POLYMERIC SUBSTANCES		\$34,872,698
	FIBROUS/FILAMENTARY MATERIALS USED IN MATRIX STRUC		\$3,408,122
	GRAPHITE AND CERAMIC MATERIALS	4	\$22,664,000
1C111	PROPELLANTS AND CONSTITUENT CHEMICALS	2	
1C202	ALUMINUM AND TITANIUM ALLOYS IN THE FORM OF TUBES/	41	\$99,000 \$11,066,737 \$22,736,879
1C210	FIBROUS/FILAMENTARY MATERIALS NOT CONTROLLED BY 1C	22	\$22,736,879
1C225	BORON AND BORON COMPOUNDS/MIXTURES AND LOADED MATE	3	\$3,918,350
1C227		4 1	\$1,340
1C228	MAGNESIUM CONTAINING IMPURITIES OTHER THAN CALCIUM	1	\$70
1C229	HIGH PURITY BISMUTH WITH LOW SILVER CONTENT	2	\$936
1C230	BERYLLIUM	3	\$342 <b>,</b> 294
1C231	HAFNIUM	22	\$4,607,025
1C232	HELIUM-3 OR HELIUM ISOTOPICALLY ENRICHED IN THE HE		\$1,176,130
1C233		10	\$27,818
1C234		18	\$4,166,235
1C240		4	\$264,660
	CHEMICALS, PRECURSORS FOR TOXIC CHEMICAL AGENTS		
	HUMAN PATHOGENS, ZOONOSES, AND TOXINS	45	\$121,718
	ANIMAL PATHOGENS GENETICALLY MODIFIED MICROORGANISMS	5 1	\$18,003 \$8
10000	GEMETICALLI MODIFIED MICHOUNGANISMS	Τ.	ې۵

CCL	DESCRIPTION	APPLICATIONS	
1C981	CRUDE PETROLEUM/TAR SANDS/CRUDE SHALE	2	\$10,000,000,000
1D003	SOFTWARE DESIGNED FOR EOPT CONTROLLED UNDER 1A004	12	\$1,213,085
1E001	TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT UNDER 1A00	13	\$11,360
1E101	TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT UNDER 1A10	1	\$1
1E201	TECHNOLOGY FOR USE OF 1A002,1A202,1A225 TO 1B225	2	\$2
1E350	TECHNOLOGY FOR USE OF 1C350 CHEMICALS	1	\$1
1E351	TECHNOLOGY FOR USE OF MICROBIOLOGICAL MATERIALS	3	\$3
2A983	EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT	20	\$5,706,916
2B001	NUMERICAL CONTROL UNITS/MOTION CONTROL BOARDS	43	\$59,124,544
2B006	DIMENSIONAL INSPECTION/MEASURING SYSTEMS OR EQUIPM	51	\$3,714,798
2B008	ASSEMBLIES/UNITS/INSERTS FOR MACHINE TOOLS IN 2B00	25	\$1,198,238
2B009	PRINTED CIRCUIT BOARDS/ROTARY TABLES FOR TOOLS IN	2	\$4,299,780
2B201	MACHINE TOOLS FOR REMOVING OR CUTTING METALS	4	\$10,732,250
2B204	ISOSTATIC PRESSES NOT CONTROLLED BY 2B004 OR 2B104	2	\$1,058,500
2B206	DIMENSIONAL INSPECTION MACHINES, DEVICES OR SYSTEMS	10	\$774 <b>,</b> 600
2B226	VACUUM AND CONTROLLED ENVIRONMENT INDUCTION FURNAC	1	\$1 <b>,</b> 379 <b>,</b> 500
2B230	PRESSURE TRANSDUCERS	146	\$18,128,565
2B231	VACUUM PUMPS	17	\$678 <b>,</b> 772
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	343	\$100,741,470
2B351	TOXIC GAS MONITORING SYSTEMS & DEDICATED DETECTORS	6	\$450,907
2B352	EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS	94	\$12,033,945
2D002	ADAPTIVE CONTROL/ELECTRONIC DEVICE SOFTWARE	34	\$148,813
2D351	DEDICATED SOFTWARE FOR TOXIC GAS MONITORING SYSTEM	1	\$1,875
2D983	EQUIPMENT CONTROLLED BY 2A983	15	\$2,379,698
2E001	TECHNOLOGY SUPPORTING EQUIPMENT/SOFTWARE IN 2A/2B/	13	\$12
2E002	TECHNOLOGY SUPPORTING EQUIPMENT/PRODUCTION IN 2A/2	12	\$11
2E003 2E301	OTHER TECHNOLOGY TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B	3 9	\$5 \$9
2E301 2E983	SOFTWARE CONTROLLED BY 2D983	3	
3A001	ELECTRONIC DEVICES/COMPONENTS	176	\$5,050 \$64,667,843
3A001	GENERAL PURPOSE ELECTRONIC EQUIPMENT	24	\$1,928,072
3A002	SPRAY COOLING THERMAL MANAGEMENT SYSTEMS	1	\$11,200,000
3A225	INVERTERS/CONVERTERS/FREQUENCY CHANGERS/GENERATORS	5	\$201,154
3A227	HIGH VOLTAGE D-C POWER SUPPLIES	1	\$217,600
3A230	HIGH SPEED PULSE GENERATORS	4	\$72,354
3A231	NEUTRON GENERATOR SYSTEMS INCLUDING TUBES	3	\$2,345,491
3A233	MASS SPECTROMETERS	392	\$58,021,841
3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	1	\$13,530
3A992	GENERAL PURPOSE ELECTRONIC EQUIPMENT	1	\$38,448
3A999	SPECIFIC PROCESSING EQUIPMENT, N.E.S.	4	\$151 <b>,</b> 631
3B001	EPITAXIAL EQUIPMENT FOR SEMICONDUCTORS	59	\$1,046,257,306
3B002	ION IMPLANTATION EQUIPMENT FOR SEMICONDUCTORS	1	\$68,774
3B991	OTHER MFG/TEST EQUIPMENT NOT CONTROLLED BY 3B	6	\$6
3B992	EQUIPMENT FOR THE INSPECTION/TESTING OF COMPONENTS	6	\$6
3C001	HETERO-EPITAXIAL MATERIALS	5	\$27 <b>,</b> 471
3C002	RESIST MATERIALS	9	\$23 <b>,</b> 275 <b>,</b> 750
3C003	ORGANO-INORGANIC COMPOUNDS DESCRIBED IN THIS ENTRY	58	\$573 <b>,</b> 841 <b>,</b> 400
3C004	HYDRIDES OF PHOSPHORUS, ARSENIC, OR ANTIMONY	15	\$16,353,727
3C005	SILICON CARBIDE WAFERS	1	\$10,000
3D001	SOFTWARE FOR DEV OR PROD OF EQUIP CERTAIN ITEMS IN	14	\$14
3D002	SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B	86	\$2,965
3D003	CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED	74	\$74
3D980	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A	1	\$8,898

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
3D991	GENERAL PURPOSE ELECTRONIC EQUIPMENT FOR 3A992	7	\$6
3E001	TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/	440	\$85 <b>,</b> 387
3E002	OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3	474	\$465
3E003	OTHER "TECHNOLOGY"	75	\$75
3E201	TECHNOLOGY FOR THE USE OF CERTAIN ITEMS IN 3A	2	\$18,000
3E991	MANUFACTURING AND TEST EQUIPMENT FOR 3B991/92	7	\$6
4A994	ITEMS NOT CONTROLLED BY 4A001/4A002/4A003	7	\$8,083
4D001	SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D	245	\$245
4D002	SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E	180	\$180
4D993	SPECIFIC SOFTWARE FOR REAL TIME PROCESSING EQUIPME	3	\$3
4D994	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 4A994/4B994/	3	\$3
4E001	TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW	292	\$15 <b>,</b> 291
4E992	TECHNOLOGY FOR DEV/PROD/USE OF 4A994/4B994/4C994	3	\$3
4E993	TECHNOLOGY FOR DEV/PROD OF MDSP, HARD DISK DRIVES,	3	\$3
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	56	\$65,644,626
5A992	INFORMATION SECURITY EQUIPMENT	3	\$143,941
5B002	TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S	4	\$4
5D001	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/	262	\$187 <b>,</b> 760
5D002	SOFTWARE FOR INFORMATION SECURITY	31	\$2,549,382
5D991	SOFTWARE FOR DEV/PROD/USE WITH 5B994 TEST EQUIPMEN	3	\$3
5D992	SOFTWARE NOT CONTROLLED BY 5D002	3	\$2
5E001	TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0	705	\$189 <b>,</b> 158
5E002	TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT	79	\$825,071
5E991	TECHNOLOGY FOR DEV/PROD/USE OF 5B994 OR 5D991	3	\$3
5E992	TECHNOLOGY FOR INFORMATION SECURITY/CRYPTOLOGY	3	\$3
6A001	ACOUSTICS	8	\$344,644,203
6A002	OPTICAL SENSORS	6	\$4,136,908
6A003	CAMERAS	44	\$2,187,163
6A005	OPTICAL EQUIPMENT (LASERS)	37	\$4,086,578
6A006	MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S	8	\$168 <b>,</b> 000
6A203	CAMERAS/COMPONENTS NOT CONTROLLED BY ECCN 6A003	15	\$1,029,218
6A205	LASERS, OTHER THAN THOSE SPECIFIED IN 6A005	5	\$591 <b>,</b> 936
6E001	TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT/MATERIALS/	5	\$5
6E002	TECHNOLOGY FOR PRODUCTION OF EQUIPMENT/MATERIALS I	4	\$4
7A003	INERTIAL NAVIGATION SYSTEMS (GIMBALLED/STRAPDOWN)	5	\$1 <b>,</b> 989 <b>,</b> 770
7A103	INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT	18	\$21 <b>,</b> 576 <b>,</b> 600
7D003	OTHER SOFTWARE	1	\$50 <b>,</b> 000
7D994	FOTHER SOFTWARE FOR NAVIGATION AND AVIONICS	3	\$3
7E001	TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A	2	\$10,001
7E004	OTHER TECHNOLOGY	3	\$1,502
7E994	OTHER TECHNOLOGY RELATED TO NAVIGATION OR AVIONICS	3	\$3
8A001	SUBMERSIBLE VEHICLES OR SURFACE VESSELS	1	\$209,804
8A002	SYSTEMS OR EQUIPMENT FOR SUBMERSIBLE VEHICLES	1	\$3,617
8C001	SYNTACTIC FOAM FOR UNDERWATER USE	1	\$24,960
9A001	AERO GAS TURBINE ENGINES	1	\$3,500,000
9B990	VIBRATION TEST EQUIPMENT	2	\$295,000
9E003	OTHER TECHNOLOGY	3	\$104
9E990	TECHNOLOGY FOR THE DEV/PROD/USE OF ITEMS IN 9A990	1	\$30

TOTAL APPLICATIONS: 3236

TOTAL CCL'S: 133
TOTAL DOLLAR VALUE: \$12,754,904,475

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE

EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	269	\$4,341,487,487
1A999	SPECIFIC PROCESSING EQUIPMENT, N.E.S	1	\$0
1B999	SPECIFIC PROCESSING EQUIPMENT, N.E.S.	5	\$0
1C990	FIBROUS AND FILAMENTARY MATERIALS	5	\$0
1E994	TECHNOLOGY FOR 1C993 MATERIALS OR 1C994 FLUIDS	5	\$0
2A994	PORTABLE ELECTRIC GENERATORS AND SPECIALLY DESIGNE	4	\$274,841
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	1	\$697 <b>,</b> 760
2B999	SPECIFIC PROCESSING EQUIPMENT, N.E.S.	1	\$33,590
3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	1	\$4,510
3D980	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A	1	\$2 <b>,</b> 966
4A994	ITEMS NOT CONTROLLED BY 4A001/4A002/4A003	4	\$859 <b>,</b> 909
4D994	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 4A994/4B994/	1	\$1
4E992	TECHNOLOGY FOR DEV/PROD/USE OF 4A994/4B994/4C994	1	\$1
5A991	TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001	4	\$25 <b>,</b> 159
5A992	INFORMATION SECURITY EQUIPMENT	109	\$322,513,749
5D002	SOFTWARE FOR INFORMATION SECURITY	4	\$1
5D991	SOFTWARE FOR DEV/PROD/USE WITH 5B994 TEST EQUIPMEN	1	\$1
5D992	SOFTWARE NOT CONTROLLED BY 5D002	16	\$501
5E002	TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT	1	\$1
5E991	TECHNOLOGY FOR DEV/PROD/USE OF 5B994 OR 5D991	1	\$1
5E992	TECHNOLOGY FOR INFORMATION SECURITY/CRYPTOLOGY	2	\$2
6A991	MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT	1	\$0
7A994	OTHER NAVIGATION/AIRBORNE COMMUNICATION EQUIPMENT	8	\$20,390
8A001	SUBMERSIBLE VEHICLES OR SURFACE VESSELS	1	\$0
8A992	VESSELS, MARINE SYSTEMS, EQUIPMENT NOT 8A001/8A002	31	\$8,000,000
9A991	AIRCRAFT AND CERTAIN GAS TURBINE ENGINES N.E.S.	24	\$3
9E991	TECHNOLOGY FOR THE DEV/PROD/USE WITH ITEMS IN 9A99	5	\$0

TOTAL APPLICATIONS: 419
TOTAL CCL'S: 27
TOTAL DOLLAR VALUE: \$4,673,920,873

# GEORGIA

0A978	SAPS	1	\$576 <b>,</b> 000
0A982	THUMBCUFFS, LEG IRONS AND SHACKLES	1	\$144,000
0A984	SHOTGUNS, BUCKSHOT, SHOTGUN SHELLS	9	\$247 <b>,</b> 852
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	3	\$300 <b>,</b> 726
1A004	PROTECTIVE AND DETECTION EQUIPMENT	1	\$34,849
1C011	METALS AND COMPOUNDS	1	\$450
1C240	NICKEL POWDER OR POROUS NICKEL METAL	1	\$2 <b>,</b> 500
3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	2	\$18,450
3D980	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A	2	\$1
3E001	TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/	1	\$1
3E002	OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3	1	\$1

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	6	\$65,587
5D002		3	\$4
	TOTAL APPLICATIONS: 26		
	TOTAL CCL'S: 13		
	TOTAL DOLLAR VALUE: \$1,390,421		
IRAQ			
EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	2	\$21,565
0A018	ITEMS ON THE INTERNATIONAL MUNITIONS LIST	1	\$250,000
0A978 0A982	SAPS	2 2	\$7,100
0A982 0A985	THUMBCUFFS, LEG IRONS AND SHACKLES DISCHARGE TYPE ARMS	2	\$22,250 \$3,450,000
1A004	PROTECTIVE AND DETECTION EQUIPMENT	17	\$30,195,599
1A004	DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES	3	\$419,675,000
1A985	FINGERPRINTING POWDERS, DYES, AND INKS	2	\$201,074
1B999	SPECIFIC PROCESSING EQUIPMENT, N.E.S.	19	\$13,014,790
1C992	OIL WELL PERFORATORS	23	\$285,928,212
1C995	MIXTURES CONTAINING PRECUSOR & INTERMEDIATE CHEM	1	\$1,680
1C997	AMMONIUM NITRATE	2	\$170
1D003	SOFTWARE DESIGNED FOR EQPT CONTROLLED UNDER 1A004	1	\$1,000
2A983	EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT	1	\$2,400,000
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	6	\$148,113
2D983	EQUIPMENT CONTROLLED BY 2A983	1	\$4,000
2E983	SOFTWARE CONTROLLED BY 2D983	1	\$4,000
3A001	ELECTRONIC DEVICES/COMPONENTS	1	\$6,431
3A101	ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0		\$42,665,408
3A231 3A292	NEUTRON GENERATOR SYSTEMS INCLUDING TUBES OSCILLOSCOPES AND TRANSIENT RECORDERS	5 4	\$5,487,400 \$152,068
3A292 3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT		\$3,642,796
3D101		5	\$150,050
3D101	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A		\$1,075
3D991	GENERAL PURPOSE ELECTRONIC EQUIPMENT FOR 3A992	1	\$1,000
3E201	TECHNOLOGY FOR THE USE OF CERTAIN ITEMS IN 3A	2	\$1,200
3E991	MANUFACTURING AND TEST EQUIPMENT FOR 3B991/92	1	\$1,000
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC		\$1,461,608
5A992	INFORMATION SECURITY EQUIPMENT	2	\$265 <b>,</b> 280
5D002	SOFTWARE FOR INFORMATION SECURITY	3	\$69,693
5E002	TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT		\$1
6A003	CAMERAS	2	\$28,180
6A004	OPTICS (MIRRORS)	1	\$44,550
6A006	MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S		\$20,000
6A992	OPTICAL SENSORS NOT CONTROLLED BY 6A002 COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST	1 3	\$293,664
9A018	COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST	3	\$20,162,750
	TOTAL APPLICATIONS: 116		

TOTAL APPLICATIONS: 116
TOTAL CCL'S: 36
TOTAL DOLLAR VALUE: \$829,778,707

CCL DESCRIPTION APPLICATIONS DOLLAR VALUE 

### KAZAKHSTAN

0A985         DISCHARGE TYPE ARMS         1         \$300,000           0A987         OPTICAL SIGHTING DEVICES FOR FIREARMS         65         \$3,785,639           1A004         PROTECTIVE AND DETECTION EQUIPMENT         4         \$410,245           1A007         DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES         2         \$208,680,400           1B119         FLUID ENERGY MILLS         1         \$36,128           2A983         EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT         1         \$210,000           2B350         CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT         5         \$7,675,449           2B352         EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS         2         \$7,569,510           2D983         EQUIPMENT CONTROLLED BY 2A983         1         \$10,000           2E301         TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B         1         \$81,004           3A001         ELECTRONIC DEVICES/COMPONENTS         1         \$228,520           3A101         ELECTRONIC DEVICES/COMPONENTS         1         \$3,124,000           3A981         POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT         2         \$23,400           3A981         POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT         2         \$23,400           3D003 <t< th=""><th>EAR99</th><th>ITEMS SUBJECT TO THE EAR N.E.S.</th><th>2</th><th>\$152,946</th></t<>	EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	2	\$152,946
1A004       PROTECTIVE AND DETECTION EQUIPMENT       4       \$410,245         1A007       DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES       2       \$208,680,400         1B119       FLUID ENERGY MILLS       1       \$36,128         2A983       EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT       1       \$210,000         2B350       CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT       5       \$7,675,449         2B352       EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS       2       \$7,569,510         2D983       EQUIPMENT CONTROLLED BY 2A983       1       \$10,000         2E301       TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B       1       \$1,000         3A001       ELECTRONIC DEVICES/COMPONENTS       1       \$3,124,000         3A001       ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0       1       \$3,124,000         3A980       VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT       1       \$0         3A981       POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT       2       \$23,400         3D002       SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B       1       \$1         3D003       CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED       1       \$1         3D003       CAD SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B	0A985	DISCHARGE TYPE ARMS	1	\$300,000
1A007         DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES         2         \$208,680,400           1B119         FLUID ENERGY MILLS         1         \$36,128           2A983         EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT         1         \$210,000           2B350         CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT         5         \$7,675,449           2B352         EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS         2         \$7,569,510           2D983         EQUIPMENT CONTROLLED BY 2A983         1         \$10,000           2E301         TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B         1         \$81,024           2E983         SOFTWARE CONTROLLED BY 2D983         1         \$1,000           3A001         ELECTRONIC DEVICES/COMPONENTS         1         \$28,520           3A101         ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0         1         \$3,124,000           3A980         VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT         2         \$23,400           3A981         POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT         2         \$23,400           3D002         SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B         1         \$1           3D003         CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED         1         \$1	0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	65	\$3,785,639
BB119	1A004	PROTECTIVE AND DETECTION EQUIPMENT	4	\$410,245
2A983         EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT         1         \$210,000           2B350         CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT         5         \$7,675,449           2B352         EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS         2         \$7,569,510           2D983         EQUIPMENT CONTROLLED BY 2A983         1         \$10,000           2E301         TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B         1         \$81,024           2E983         SOFTWARE CONTROLLED BY 2D983         1         \$1,000           3A001         ELECTRONIC DEVICES/COMPONENTS         1         \$28,520           3A101         ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0         1         \$3,124,000           3A980         VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT         1         \$0           3A981         POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT         2         \$23,400           3D002         SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B         1         \$1           3D003         CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED         1         \$1           3D101         SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A10.B         1         \$10,000           3D980         SOFTWARE FOR DEV/PROD/USE OF ITEMS IN CATEGORY 3         1         \$1 <td>1A007</td> <td>DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES</td> <td>2</td> <td>\$208,680,400</td>	1A007	DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES	2	\$208,680,400
2B350         CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT         5         \$7,675,449           2B352         EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS         2         \$7,569,510           2D983         EQUIPMENT CONTROLLED BY 2A983         1         \$10,000           2E301         TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B         1         \$81,024           2E983         SOFTWARE CONTROLLED BY 2D983         1         \$1,000           3A001         ELECTRONIC DEVICES/COMPONENTS         1         \$28,520           3A101         ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0         1         \$3,124,000           3A980         VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT         1         \$0           3A981         POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT         2         \$23,400           3D002         SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B         1         \$1           3D003         CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED         1         \$1           3D101         SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B         1         \$1           3B001         TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/         1         \$1           3E002         OTHER TECHNOLOGY FOR DEV OR PROD OF CERTAIN EQUIP/SOFTW         1         \$	1B119	FLUID ENERGY MILLS	1	\$36,128
2B352         EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS         2         \$7,569,510           2D983         EQUIPMENT CONTROLLED BY 2A983         1         \$10,000           2E301         TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B         1         \$81,002           2E983         SOFTWARE CONTROLLED BY 2D983         1         \$1,000           3A001         ELECTRONIC DEVICES/COMPONENTS         1         \$28,520           3A101         ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0         1         \$3,124,000           3A980         VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT         1         \$0           3A981         POLYGRAPHS/FINGERRRINT ANALYZERS/CAMERAS/EQUIPMENT         2         \$23,400           3D002         SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B         1         \$1           3D003         CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED         1         \$1           3D101         SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B         1         \$10,000           3D980         SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A         1         \$1           3E001         TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/         1         \$1           3E002         OTHER TECHNOLOGY FOR ITEMS IN CATEGORY         1         \$1	2A983	EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT	1	\$210,000
2D983	2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT		\$7,675,449
2E301         TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B         1         \$81,024           2E983         SOFTWARE CONTROLLED BY 2D983         1         \$1,000           3A001         ELECTRONIC DEVICES/COMPONENTS         1         \$28,520           3A101         ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0         1         \$3,124,000           3A980         VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT         1         \$0           3A981         POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT         2         \$23,400           3D002         SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B         1         \$1           3D003         CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED         1         \$1           3D101         SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B         1         \$10,000           3D980         SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A         1         \$1           3E001         TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/         1         \$1           3E002         OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3         1         \$1           4D001         SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D         1         \$1           4E001         TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW         1         \$5<	2B352	EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS	2	\$7 <b>,</b> 569 <b>,</b> 510
2E983       SOFTWARE CONTROLLED BY 2D983       1       \$1,000         3A001       ELECTRONIC DEVICES/COMPONENTS       1       \$28,520         3A101       ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0       1       \$3,124,000         3A980       VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT       1       \$0         3A981       POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT       2       \$23,400         3D002       SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B       1       \$1         3D003       CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED       1       \$1         3D101       SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B       1       \$10,000         3D980       SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A       1       \$1         3E001       TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/       1       \$1         3E002       OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3       1       \$1         4D001       SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D       1       \$1         4E001       TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW       1       \$1         5A002       SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC       4       \$56,930         5D002       TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN	2D983	EQUIPMENT CONTROLLED BY 2A983	1	\$10,000
3A001 ELECTRONIC DEVICES/COMPONENTS  3A101 ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0  3A980 VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT  3A981 POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT  3D002 SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B  3D003 CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED  3D101 SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B  3D980 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A  3E001 TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/  3E002 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3  3E003 OTHER "TECHNOLOGY"  4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D  4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW  5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC  4 \$56,930  5E001 TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0  1 \$395,840  7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT  1 \$395,840	2E301	TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B	1	\$81,024
AA101 ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0  3A980 VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT  3A981 POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT  3D002 SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B  3D003 CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED  3D101 SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B  3D980 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A  3E001 TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/  3E002 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3  4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D  4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW  4D001 SOFTWARE FOR CERTAIN SECURITY  5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC  4 \$56,930  5E001 TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0  1 \$0  5E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  1 \$0  7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT  1 \$395,840	2E983	SOFTWARE CONTROLLED BY 2D983	1	\$1,000
3A980 VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT  3A981 POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT  2 \$23,400 3D002 SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B  3D003 CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED  3D101 SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B  3D101 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A  3E001 TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/  3E002 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3  3E003 OTHER "TECHNOLOGY"  4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D  4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW  5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC  4 \$56,930  5D002 SOFTWARE FOR INFORMATION SECURITY  2 \$500 5E001 TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0  1 \$0 5E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  1 \$0 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT  1 \$395,840	3A001	ELECTRONIC DEVICES/COMPONENTS	1	\$28,520
3A981 POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT 2 \$23,400 3D002 SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B 1 \$1 3D003 CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED 1 \$1 3D101 SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B 1 \$10,000 3D980 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A 1 \$0 3E001 TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 1 \$1 3E002 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 1 \$1 3E003 OTHER "TECHNOLOGY" 1 \$1 4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 1 \$1 4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 1 \$1 5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC 4 \$56,930 5D002 SOFTWARE FOR INFORMATION SECURITY 2 \$500 5E001 TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 1 \$0 5E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 1 \$0 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT 1 \$395,840	3A101	ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0	1	\$3,124,000
3D002   SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B   1   31   31   31   31   31   31   3	3A980	VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT	1	\$0
3D003   CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED   1   31   31   31   31   31   31   31	3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	2	\$23,400
3D101   SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B   1   \$10,000   3D980   SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A   1   \$0   3E001   TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/	3D002	SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B	1	\$1
3D980   SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A   1   \$0   3E001   TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/	3D003	CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED	1	\$1
3E001 TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 3E002 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 1 \$1 3E003 OTHER "TECHNOLOGY" 1 \$1 4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 1 \$1 4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 1 \$1 5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC 4 \$56,930 5D002 SOFTWARE FOR INFORMATION SECURITY 2 \$500 5E001 TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 1 \$0 5E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 1 \$0 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT 1 \$395,840	3D101	SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B	1	\$10,000
3E002       OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3       1       \$1         3E003       OTHER "TECHNOLOGY"       1       \$1         4D001       SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D       1       \$1         4E001       TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW       1       \$1         5A002       SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC       4       \$56,930         5D002       SOFTWARE FOR INFORMATION SECURITY       2       \$500         5E001       TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0       1       \$0         5E002       TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT       1       \$0         7A103       INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT       1       \$395,840	3D980	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A	1	\$0
3E003         OTHER "TECHNOLOGY"         1         \$1           4D001         SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D         1         \$1           4E001         TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW         1         \$1           5A002         SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC         4         \$56,930           5D002         SOFTWARE FOR INFORMATION SECURITY         2         \$500           5E001         TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0         1         \$0           5E002         TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT         1         \$395,840           7A103         INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT         1         \$395,840	3E001	TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/	1	
4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 1 \$1 4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 1 \$1 5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC 4 \$56,930 5D002 SOFTWARE FOR INFORMATION SECURITY 2 \$500 5E001 TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 1 \$0 5E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 1 \$0 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT 1 \$395,840		OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3	1	
4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 1 \$1 5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC 4 \$56,930 5D002 SOFTWARE FOR INFORMATION SECURITY 2 \$500 5E001 TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 1 \$0 5E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 1 \$0 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT 1 \$395,840			1	
5A002SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC4\$56,9305D002SOFTWARE FOR INFORMATION SECURITY2\$5005E001TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A01\$05E002TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT1\$07A103INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT1\$395,840		SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D	1	
5D002SOFTWARE FOR INFORMATION SECURITY2\$5005E001TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A01\$05E002TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT1\$07A103INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT1\$395,840		TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW	1	
5E001 TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 1 \$0 5E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 1 \$0 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT 1 \$395,840	5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC		\$56 <b>,</b> 930
5E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 1 \$0 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT 1 \$395,840				
7a103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT 1 \$395,840				
		TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT	1	
9A004 SPACECRAFT 1 \$4,134		~ · · · · · · · · · · · · · · · · · · ·	1	·
	9A004	SPACECRAFT	1	\$4,134

TOTAL APPLICATIONS: 96 TOTAL CCL'S: 31

TOTAL DOLLAR VALUE: \$232,555,672

#### KOREA DEMOCRATIC PEOPLES REPUBLIC

EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	12	\$13,960,811
3A992	GENERAL PURPOSE ELECTRONIC EQUIPMENT	1	\$0
5A991	TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001	2	\$3,104
5A992	INFORMATION SECURITY EQUIPMENT	4	\$14,439
5D002	SOFTWARE FOR INFORMATION SECURITY	2	\$0
5D992	SOFTWARE NOT CONTROLLED BY 5D002	6	\$24
5E992	TECHNOLOGY FOR INFORMATION SECURITY/CRYPTOLOGY	2	\$1

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
	TECHNOLOGY FOR EQUIPMENT CONTROLLED BY 6A991/96-98 OTHER NAVIGATION/AIRBORNE COMMUNICATION EQUIPMENT	1 1	\$0 \$0
	TOTAL APPLICATIONS: 14 TOTAL CCL'S: 9 TOTAL DOLLAR VALUE: \$13,978,379		
KYRGYZ	STAN		
0A984 0A987 1A004 1A005 3E002 5A002	ITEMS ON THE INTERNATIONAL MUNITIONS LIST POLICE HELMETS, SHIELDS AND PARTS SHOTGUNS, BUCKSHOT, SHOTGUN SHELLS OPTICAL SIGHTING DEVICES FOR FIREARMS PROTECTIVE AND DETECTION EQUIPMENT BODY ARMOR OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC SOFTWARE FOR INFORMATION SECURITY  TOTAL APPLICATIONS: 15 TOTAL CCL'S: 9 TOTAL DOLLAR VALUE: \$568,757	1 1 2 8 1 1 1 3 2	\$10,250 \$948 \$47,175 \$159,117 \$22,743 \$27,825 \$1 \$300,698
LAOS			
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT TOTAL APPLICATIONS: 3 TOTAL CCL'S: 2 TOTAL DOLLAR VALUE: \$346,993	2 1	\$167,183 \$179,810
LIBYA			
1A005 1C350 1C992 1D003 1E002 2A292 2B350 2B351	PROTECTIVE AND DETECTION EQUIPMENT BODY ARMOR CHEMICALS, PRECURSORS FOR TOXIC CHEMICAL AGENTS OIL WELL PERFORATORS SOFTWARE DESIGNED FOR EQPT CONTROLLED UNDER 1A004 OTHER TECHNOLOGY PIPING/FITTINGS/VALVES MADE/LINED WITH NAMED ALLOY CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT TOXIC GAS MONITORING SYSTEMS & DEDICATED DETECTORS NEUTRON GENERATOR SYSTEMS INCLUDING TUBES	1 1 1	\$2,663,799 \$0 \$4,800 \$4,866,310 \$0 \$0 \$2,418,529 \$5,102 \$350,000 \$1,143,450

	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
3E002 3E201 5A002 5A991 5D002 6A003 9A018		1 2 6 1 3 2	\$1 \$19,802 \$84,693 \$2,546 \$20,418 \$180,954 \$418,630
MACAO			
1A004 1C350 1D003 3E001 3E002 4D001 4D002 4E001 5A002 5D001 5D002 5E001 7A103	OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ SOFTWARE FOR INFORMATION SECURITY TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0	1 1 1 1 1 7 1 3 1	\$187,377 \$70 \$1,400 \$1,400 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1,5 \$1 \$1 \$5,001 \$1 \$394,845
MOLDOVA			
1A004 1A985 3A101 3A980 3A981 5A002	FINGERPRINTING POWDERS, DYES, AND INKS ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0	1 1 1 3 1 2 2 2 2 2 1 1	\$95,400 \$6,600 \$15,456 \$1,320 \$1,095,475 \$1,030,000 \$480,000 \$0 \$19,800 \$21,038 \$26,970 \$157,600

CCL DESCRIPTION APPLICATIONS DOLLAR VALUE

TOTAL APPLICATIONS: 14

TOTAL CCL'S: 12

TOTAL DOLLAR VALUE: \$2,949,659

#### MONGOLIA

EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	1	\$31,200
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	1	\$9,240
1A001	COMPONENTS MADE FROM FLUORINATED COMPOUNDS	2	\$7 <b>,</b> 940
2B230	PRESSURE TRANSDUCERS	1	\$65,000
3A002	GENERAL PURPOSE ELECTRONIC EQUIPMENT	1	\$67,415
3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	1	\$990
3D980	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A	1	\$0
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	1	\$112,420
5D002	SOFTWARE FOR INFORMATION SECURITY	1	\$208,800

TOTAL APPLICATIONS: 7

TOTAL CCL'S: 9

TOTAL DOLLAR VALUE: \$503,005

### RUSSIA FEDERATION

		0.6	************
EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	36	\$91,167,172
0A979	POLICE HELMETS, SHIELDS AND PARTS	6	\$1,990,118
0A980	HORSES BY SEA	3	\$2,050,000
0A982	THUMBCUFFS, LEG IRONS AND SHACKLES	1	\$700
0A984	SHOTGUNS, BUCKSHOT, SHOTGUN SHELLS	11	\$618,004
0A985	DISCHARGE TYPE ARMS	2	\$97 <b>,</b> 800
0A986	SHOTGUN SHELLS (EXCEPT BUCKSHOT SHELLS) AND PARTS	1	\$23,135
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	1338	\$33,382,751
1A004	PROTECTIVE AND DETECTION EQUIPMENT	22	\$6,780,474
1A007	DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES	7	\$797,835,659
1A985	FINGERPRINTING POWDERS, DYES, AND INKS	1	\$1,000,000
1A995	PROTECTIVE AND DETECTION EQUIPMENT	1	\$15,000
1A999	SPECIFIC PROCESSING EQUIPMENT, N.E.S	3	\$181 <b>,</b> 375
1C006	FLUIDS AND LUBRICATING MATERIALS	10	\$82 <b>,</b> 878
1C009	UNPROCESSED FLUORINATED COMPOUNDS	1	\$3
1C010	FIBROUS/FILAMENTARY MATERIALS USED IN MATRIX STRUC	1	\$3,861,000
1C350	CHEMICALS, PRECURSORS FOR TOXIC CHEMICAL AGENTS	3	\$28,040,000
1C352	ANIMAL PATHOGENS	1	\$1,000
1D003	SOFTWARE DESIGNED FOR EQPT CONTROLLED UNDER 1A004	5	\$91 <b>,</b> 935
1E101	TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT UNDER 1A10	1	\$15 <b>,</b> 739
2A983	EXPLOSIVES OR DETONATOR DETECTION EQUIPMENT	6	\$1,593,713
2B001	NUMERICAL CONTROL UNITS/MOTION CONTROL BOARDS	17	\$4,351,284
2B008	ASSEMBLIES/UNITS/INSERTS FOR MACHINE TOOLS IN 2B00	8	\$352,100
2B116	VIBRATION TEST SYSTEMS, EQUIPMENT, AND COMPONENTS TH	1	\$150,000
2B230	PRESSURE TRANSDUCERS	1	\$413,404

28350   CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT   37   \$5,212,001   28552   EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS   7   \$953,501   2D002   ADAPTIVE CONTROL/SLECTRONIC DEVICE SOFTWARE   7   \$953,501   2D001   TECHNOLOGY SUPPORTING EQUIPMENT/SOFTWARE IN 2A/2b   1   \$0   2E002   TECHNOLOGY SUPPORTING EQUIPMENT/SOFTWARE IN 2A/2b   1   \$0   2E003   OTHER TECHNOLOGY SUPPORTING EQUIPMENT/PRODUCTION IN 2A/2   1   \$0   2E003   OTHER TECHNOLOGY SUPPORTING EQUIPMENT/PRODUCTION IN 2A/2   1   \$0   2E003   OTHER TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B   1   \$0   2E9301   TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B   1   \$0   2E9303   SOFTWARE CONTROLLED BY 2D983   3   \$4,859   3A001   ELECTRONIC DEVICES/COMPONENTS   80   \$13,578,638   3A002   GENERAL PURPOSE ELECTRONIC EQUIPMENT   16   \$815,134   3A101   ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0   4   \$6,510,000   3A980   VOICE PRINT IDENTIFICATION AND HARLYSIS SQUIPMENT   1   \$0   3A981   POLYGRAPHS/FINGERPRINT ANALYZERS/CAMBRAS/EQUIPMENT   1   \$2,801,250   3A982   GENERAL PURPOSE ELECTRONIC EQUIPMENT   2   \$120,791   3A992   GENERAL PURPOSE ELECTRONIC EQUIPMENT   2   \$120,791   3A993   SPECIFIC FORCESSING EQUIPMENT   2   \$120,791   3A994   SPECIFIC FORCESSING EQUIPMENT   2   \$120,791   3A995   SPECIFIC FORCESSING EQUIPMENT   4   \$2,801,250   3A996   SPECIFIC FORCESSING EQUIPMENT   5   \$3,060   3B900   EPITANIAL EQUIPMENT FOR SEMICONDUCTORS   4   \$13,818,399   3CO01   HETERO-BUFFALTIAL AMERIKALS   1   \$3,000,000   3D980   SOFTWARE FOR DEV/PROD/USE OF ITERS IN A390 AND 3A   5   \$2,498,581   3E001   TECHNOLOGY FOR DEV OR FROD OF CERTAIN TITEMS IN 3A   35   3E002   OTHER TECHNOLOGY FOR DEV OR FROD OF CERTAIN EQUIPMENT   1   \$1   44001   DIGITAL COMMUTERS/ASSEMBLIES AND RELATED EQUIPMENT   1   \$1   45001   TECHNOLOGY FOR DEV FORDO/USE OF ITEMS IN CARRIED/SOFTWARE FOR CERTAIN EQUIPMENT   5   45001   TECHNOLOGY FOR TOO CONTROLLED BY 4E   21   \$2   45001   TECHNOLOGY FOR DEVIPMENT   5   \$6   45001   TECHNOLOGY FOR DEVIPMENT   5   \$6   450	CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
2E301 TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B 1 \$0 2E983 SOFTWARE CONTROLLED BY 2D983 3 \$4,859 3A001 ELECTRONIC DEVICES/COMPONENTS 80 \$13,578,638 3A002 GENERAL PURPOSE ELECTRONIC EQUIPMENT 16 \$815,134 3A101 ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 4 \$6,510,000 3A980 VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT 1 \$5,000 3A981 POLYGRAPHS/FINGERPRINT ANALYSERS/CAMBERAS/EQUIPMENT 1 \$2,801,250 3A982 PACKAGED HIGH ELECTRON MOBILITY TRANSISTORS 2 \$6,552 3A982 GENERAL PURPOSE ELECTRONIC EQUIPMENT 2 \$120,791 3A983 SPECIFIC PROCESSING EQUIPMENT, N.E.S. 1 \$20,091 3A993 SPECIFIC PROCESSING EQUIPMENT, N.E.S. 1 \$20,091 3B001 EPITAXIAL EQUIPMENT FOR SEMICONDUCTORS 4 \$13,818,999 3C001 HETERO-EPITAXIAL MATERIALS 3C004 HYDRIDES OF PHOSPHORUS, ARSENIC, OR ANTIMONY 1 \$30,660 3D980 SOFTWARE FOR DEV/FORD/USE OF ITEMS IN 3A980 AND 3A 15 \$2,498,581 3E001 TECHNOLOGY FOR PROD OF CERTAIN TIMES IN 3A/ 35 3E002 OTHER TECHNOLOGY FOR FIRMS IN CATEGORY 1 1 \$3,000,000 4A994 ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 42 \$42 3E003 OTHER "TECHNOLOGY FOR PROD OF CERTAIN TIMES IN 3A/ 42 \$42 3E003 OTHER TECHNOLOGY FOR PROD OF CERTAIN TIMES IN 3A/ 42 \$42 3E003 OTHER TECHNOLOGY FOR POWEN TECHNOLOGY FOR SEMBLIES AND RELATED EQUIPMENT 1 \$3,000,000 4A994 ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 2 \$706,700 4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 36 \$1,435 4E992 TECHNOLOGY FOR DEV/FROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 4E992 TECHNOLOGY FOR DEV/FROD/USE OF GERTAIN EQUIP/SOFTW 36 \$36 5A991 TRANSHISSION ITEMS NOT WILL PRARMETERS IN 5A001 1 \$708,400 5A992 INFORMATION SECURITY EQUIPMENT 3 \$50,000 5A992 INFORMATION SECURITY EQUIPMENT 3 \$758,400 5B002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC 16 \$4,999,256 5A991 TRANSHISSION ITEMS NOT WILL PRARMETERS IN 5A001 5 \$9.50 5D001 SOFTWARE FOR DEV/FROD/USE OF TIMES IN 5A001/5B001/ 32 \$1.782,137 5D902 SOFTWARE FOR DEV/FROD/USE OF TIMES IN 5A001/5B001/ 32 \$1.782,137 5D902 SOFTWARE FOR DEV/FROD/USE OF TIMES IN 5A001/5B001/ 32 \$1.782,137 5D902 SOFTWARE FOR DEV/FROD/USE OF TIM	2B350	CHEMICAL MANUFACTURING FACILITIES AND FOULDMENT	37	\$5 212 001
2E003		EOUTPMENT FOR HANDLING BIOLOGICAL MATERIALS	7	\$953,501
2E003		ADAPTIVE CONTROL/ELECTRONIC DEVICE SOFTWARE	7	\$5
2E003	2D983	EQUIPMENT CONTROLLED BY 2A983	4	\$275,350
2E003	2E001	TECHNOLOGY SUPPORTING EQUIPMENT/SOFTWARE IN 2A/2B/	1	\$0
2E0101   TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B   1	2E002	TECHNOLOGY SUPPORTING EQUIPMENT/PRODUCTION IN 2A/2	1	\$0
2E983 SOFTWARE CONTROLLED BY 2D983 3A001 ELECTRONIC DEVICES/COMPONENTS 80 \$13,578,638 3A002 GENERAL PURPOSE ELECTRONIC EQUIPMENT 16 \$815,134 3A101 ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 4 \$6,510,000 3A980 VOICE PRINTI DENTIFICATION AND ANALYSIS EQUIPMENT 1 \$2,801,250 3A981 POLYGRAPHS/FINGERERINT ANALYZERS/CAMERAS/EQUIPMENT 1 \$2,801,250 3A982 PACKAGED HIGE BLECTRONIC EQUIPMENT 2 \$120,791 3A9992 GENERAL PURPOSE ELECTRONIC EQUIPMENT 2 \$120,791 3A9993 SPECIFIC PROCESSING EQUIPMENT, N.E.S. 1 \$20,091 3B001 EPITAXIAL EQUIPMENT FOR SEMICONDUCTORS 4 \$13,818,399 3C001 HETRO-PETTAXIAL MATERIALS 1 1 \$73,206 3C004 HYDRIDES OF PHOSPHORUS, ARSENIC, OR ANTIMONY 1 \$30,660 3D980 SOFTWARE FOR DEV/FROD/USE OF ITEMS IN 3A980 AND 3A 15 \$2,498,581 3E001 TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A) 35 \$35 3E002 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$706,700 4A994 ITEMS NOT CONTROLLED BY 4A001/A002/A0030 2 \$706,700 4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 36 \$1,435 5A002 SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4B 4E001 TECHNOLOGY FOR DEV/PROD/USE OF GENERAL EQUIP/SOFTW 36 \$36 4E992 TECHNOLOGY FOR DEV/PROD/USE OF GENERAL EQUIP/SOFTW 36 \$36 5A002 SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4B 5A002 SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4B 5A002 SOFTWARE FOR CERTAIN EQUIPMENT 50FTWARE IN 5A001 1 \$708,400 5B002 TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION SECURITY 50 \$44 5A001 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN SA001 1 \$708,400 5B002 TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION SECURITY 50 \$46 5A001 SOFTWARE FOR INFORMATION SECURITY 50 \$47 5A002 SOFTWARE FOR INFORMATION SECURITY 50 \$47 5A003 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 50 \$56 5B002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 50 \$59,967,610 6A001 TECHNOLOGY FOR DEVELOPMENT 50 \$40 6A001 TECHNO	2E003	OTHER TECHNOLOGY	1	\$0
2E983 SOFTWARE CONTROLLED BY 2D983 3A001 ELECTRONIC DEVICES/COMPONENTS 80 \$13,578,638 3A002 GENERAL PURPOSE ELECTRONIC EQUIPMENT 16 \$815,134 3A101 ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 4 \$6,510,000 3A980 VOICE PRINTI DENTIFICATION AND ANALYSIS EQUIPMENT 1 \$2,801,250 3A981 POLYGRAPHS/FINGERERINT ANALYZERS/CAMERAS/EQUIPMENT 1 \$2,801,250 3A982 PACKAGED HIGH ELECTRON MOBILITY TRANSISTORS 2 \$6,552 3A992 GENERAL PURPOSE ELECTRONIC EQUIPMENT 2 \$120,791 3A999 SPECIFIC PROCESSING EQUIPMENT, N.E.S. 1 \$20,091 3B001 EPITAXIAL EQUIPMENT FOR SEMICONDUCTORS 4 \$13,818,399 3C001 HETERO-FITAXIAL MATERIALS 3 1 \$73,206 3C004 HYDRIDES OF PHOSPHORUS, ARSENIC, OR ANTIMONY 1 \$73,206 3C005 HETERO-FITAXIAL MATERIALS 3 1 \$73,206 3C006 HYDRIDES OF PHOSPHORUS, ARSENIC, OR ANTIMONY 1 \$30,660 3D980 SOFTWARE FOR DEV/FROD/USE OF ITEMS IN 3A980 AND 3A 15 \$2,498,581 3E001 TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 35 \$35 3E002 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 3E003 OTHER TECHNOLOGY FOR THEMS IN CATEGORY 3 42 \$42 3E003 OTHER TECHNOLOGY FOR THEMS IN CATEGORY 3 42 \$706,700 4A994 ITEMS NOT CONTROLLED BY 4A001/AA002/AA003 2 \$706,700 4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 36 \$1,435 5A002 SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4B 4E001 TECHNOLOGY FOR DEV/PROD/USE OF GENERAL EQUIP/SOFTW 36 \$36 4E992 TECHNOLOGY FOR DEV/PROD/USE OF GENERAL EQUIP/SOFTW 36 \$36 5A991 TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 1 \$708,400 5B002 TEST/INSPECTION/PROD/USE OF ITEMS IN SA001 1 \$708,400 5B002 TEST/INSPECTION/PROD/USE OF ITEMS IN SA001 1 \$708,400 5B002 TEST/INSPECTION/PROD/USE OF ITEMS IN SA001 1 \$708,400 5B002 TEST/INSPECTION/PROD/USE OF ITEMS IN SA001/SB001/ 32 \$758,400 5B002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 5 \$4 6A001 OPTICAL SENSORS 4 \$60,664 6A003 CAMERAS 31 \$5,845,661 6A002 OPTICAL SENSORS 5 \$4 6A001 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 5 \$4 6A001 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 5 \$4 6A001 TECHNOLOGY	2E301	TECHNOLOGY FOR USE OF COMMODITIES CONTROLLED BY 2B	1	\$0
3A002 GENERAL PURPOSE ELECTRONIC EQUIPMENT 3A101 ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 4 \$6,510,000 3A980 VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT 1 \$0 3A981 POLYGRAPHS/FINGERFRINT ANALYZERS/CAMERAS/EQUIPMENT 1 \$2,801,250 3A982 PACKAGED HIGH ELECTRON MOBILITY TRANSISTORS 2 \$6,552 3A992 GENERAL PURPOSE ELECTRONIC EQUIPMENT 2 \$120,791 3A999 SPECIFIC PROCESSING EQUIPMENT, N.E.S. 1 \$20,091 3B001 EPITAXIAL EQUIPMENT FOR SEMICONDUCTORS 4 \$13,818,399 3C001 HETERO-EPITAXIAL MATERIALS 1 \$73,206 3C004 HYDRIDES OF PHOSPHORUS, ARSENIC, OR ANTIMONY 1 \$30,660 3D980 SOFTWARE FOR DEV/FROD/USE OF ITEMS IN 3A980 AND 3A 15 \$2,498,581 3E001 TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 35 \$35 3E002 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 3E003 OTHER TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 35 \$35 3E002 OTHER TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 35 \$35 3E002 OTHER TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 35 \$35 3E002 OTHER TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 35 \$35 3E002 OTHER TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 35 \$35 3E002 OTHER TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 35 \$35 3E002 OTHER TECHNOLOGY FOR DEV PROD/USE OF CERTAIN EQUIPMENT 1 \$1,000,000 4D001 SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E 21 \$51 4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 36 \$36 4E992 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 3708,400 3809 SOFTWARE FOR CONTROLLED BY AD94/4B994/4C994 3 \$915 38002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC 16 \$4,999,256 38991 TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 1 \$708,400 38002 TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S 2 \$2 3E001 SOFTWARE FOR CONTROLLED BY TO SECURITY 23 \$1,782,137 3E001 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION S 2 \$2 3E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION S 2 \$	2E983	SOFTWARE CONTROLLED BY 2D983	3	
3A101 ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 4 \$6,510,000 3A980 VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT 1 \$30,3880 VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT 1 \$2,801,250 3A982 PACKAGED HIGH ELECTRON MOBILITY TRANSISTORS 2 \$6,552 3A992 GENERAL PURPOSE ELECTRONIC EQUIPMENT 2 \$120,791 3A999 SPECIFIC PROCESSING EQUIPMENT, N.E.S. 1 \$20,091 3B001 EPITAXIAL EQUIPMENT FOR SEMICONDUCTORS 4 \$13,818,391 3C001 HETERO-EPITAXIAL MATERIALS 1 \$73,206 3C004 HYDRIDES OF PHOSPHORUS, ARSENIC, OR ANTIMONY 1 \$30,660 3D980 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A 15 \$2,498,581 3E001 TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 35 \$355 3E002 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 \$42 \$40 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 \$40 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 \$40 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 \$40 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$40 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$40 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$40 3E003 OTHER TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 40 \$40 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 \$44 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 \$44 3E003 OTHER TECHNOLOGY FOR DEV/PROD/USE OF A 540 3E003 OTHER TECHNOLOGY FOR DEV/PROD/USE OF THE SECONDO OTHER TECHNOLOGY FOR DEV/PROD/USE OF THE SECONDO OTHER	3A001	ELECTRONIC DEVICES/COMPONENTS	80	\$13,578,638
3A980	3A002	GENERAL PURPOSE ELECTRONIC EQUIPMENT	16	
3A992 PACKAGED HIGH ELECTRON MOBILITY TRANSISTORS 2 \$6,552 3A992 GENDRAL PURPOSE ELECTRONIC EQUIPMENT 2 \$120,791 3A999 SPECIFIC PROCESSINE EQUIPMENT, N.E.S. 1 \$20,091 3B001 EPITAXIAL EQUIPMENT FOR SEMICONDUCTORS 4 \$13,818,399 3C001 HETERO-EPITAXIAL MATERIALS 1 \$73,206 3C004 HYDRIDES OF FHOSPHORUS, ARSENIC, OR ANTIMONY 1 \$30,660 3D980 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A 15 \$2,498,581 3E001 TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 35 \$35 3E002 OTHER TECHNOLOGY" TOR ITEMS IN CATECORY 3 42 \$42 3E003 OTHER TECHNOLOGY" TOR ITEMS IN CATECORY 3 42 \$42 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATECORY 3 42 \$42 3E003 OTHER TECHNOLOGY BY ADOULY ADOULT 1 \$3,000,000 4A994 ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 2 \$706,700 4A003 DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT 1 \$3,000,000 4A994 ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 2 \$706,700 4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 36 \$1,435 4D002 SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E 21 \$21 4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 4E992 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 4E992 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCULTS FOR INFO SEC 16 \$4,999,256 5A991 TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 1 \$708,400 5B002 TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S 2 \$2 5D001 SOFTWARE FOR INFORMATION SECURITY 201 \$32 5D002 SOFTWARE FOR INFORMATION SECURITY 23 \$1,782,137 5D992 SOFTWARE FOR INFORMATION SECURITY 50 \$4 6A001 ACOUSTICS 9 \$7000 \$70	3A101			
3A992 PACKAGED HIGH ELECTRON MOBILITY TRANSISTORS 2 \$6,552 3A992 GENDRAL PURPOSE ELECTRONIC EQUIPMENT 2 \$120,791 3A999 SPECIFIC PROCESSINE EQUIPMENT, N.E.S. 1 \$20,091 3B001 EPITAXIAL EQUIPMENT FOR SEMICONDUCTORS 4 \$13,818,399 3C001 HETERO-EPITAXIAL MATERIALS 1 \$73,206 3C004 HYDRIDES OF FHOSPHORUS, ARSENIC, OR ANTIMONY 1 \$30,660 3D980 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A 15 \$2,498,581 3E001 TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 35 \$35 3E002 OTHER TECHNOLOGY" TOR ITEMS IN CATECORY 3 42 \$42 3E003 OTHER TECHNOLOGY" TOR ITEMS IN CATECORY 3 42 \$42 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATECORY 3 42 \$42 3E003 OTHER TECHNOLOGY BY ADOULY ADOULT 1 \$3,000,000 4A994 ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 2 \$706,700 4A003 DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT 1 \$3,000,000 4A994 ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 2 \$706,700 4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 36 \$1,435 4D002 SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E 21 \$21 4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 4E992 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 4E992 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCULTS FOR INFO SEC 16 \$4,999,256 5A991 TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 1 \$708,400 5B002 TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S 2 \$2 5D001 SOFTWARE FOR INFORMATION SECURITY 201 \$32 5D002 SOFTWARE FOR INFORMATION SECURITY 23 \$1,782,137 5D992 SOFTWARE FOR INFORMATION SECURITY 50 \$4 6A001 ACOUSTICS 9 \$7000 \$70	3A980	VOICE PRINT IDENTIFICATION AND ANALYSIS EQUIPMENT	1	\$0
3A992 PACKAGED HIGH ELECTRON MOBILITY TRANSISTORS 2 \$6,552 3A992 GENDRAL PURPOSE ELECTRONIC EQUIPMENT 2 \$120,791 3A999 SPECIFIC PROCESSINE EQUIPMENT, N.E.S. 1 \$20,091 3B001 EPITAXIAL EQUIPMENT FOR SEMICONDUCTORS 4 \$13,818,399 3C001 HETERO-EPITAXIAL MATERIALS 1 \$73,206 3C004 HYDRIDES OF FHOSPHORUS, ARSENIC, OR ANTIMONY 1 \$30,660 3D980 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A 15 \$2,498,581 3E001 TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 35 \$35 3E002 OTHER TECHNOLOGY" TOR ITEMS IN CATECORY 3 42 \$42 3E003 OTHER TECHNOLOGY" TOR ITEMS IN CATECORY 3 42 \$42 3E003 OTHER TECHNOLOGY FOR ITEMS IN CATECORY 3 42 \$42 3E003 OTHER TECHNOLOGY BY ADOULY ADOULT 1 \$3,000,000 4A994 ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 2 \$706,700 4A003 DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT 1 \$3,000,000 4A994 ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 2 \$706,700 4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 36 \$1,435 4D002 SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E 21 \$21 4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 4E992 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 4E992 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCULTS FOR INFO SEC 16 \$4,999,256 5A991 TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 1 \$708,400 5B002 TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S 2 \$2 5D001 SOFTWARE FOR INFORMATION SECURITY 201 \$32 5D002 SOFTWARE FOR INFORMATION SECURITY 23 \$1,782,137 5D992 SOFTWARE FOR INFORMATION SECURITY 50 \$4 6A001 ACOUSTICS 9 \$7000 \$70	3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	14	\$2,801,250
3A999 SPECIFIC PROCESSING EQUIPMENT, N.E.S. 1 \$20,091 3B001 EPITAXIAL EQUIPMENT FOR SEMICONDUCTORS 4 \$13,818,399 3C001 HETERO-EPITAXIAL MATERIALS 1 \$73,206 3C004 HUDRIDES OF PHOSPHORUS, ARSENIC, OR ANTIMONY 1 \$30,660 3D980 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A 15 \$2,498,581 3E001 TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 35 \$35 3E002 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 3E003 OTHER "TECHNOLOGY" 1 \$3,000,000 4A994 ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 2 \$706,700 4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 36 \$1,435 4D002 SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E 21 \$21 4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 4E992 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 4E992 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$4,999,256 5A991 TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 1 \$708,400 5A992 INFORMATION SECURITY EQUIPMENT 3 \$758,400 5B002 SUSTEMS/EQUIPMENT/INFEGRATED CLEUITS FOR INFO SEC 16 \$4,999,256 5A991 TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 1 \$708,400 5B002 TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S 2 \$2 5D001 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 \$32 5D002 SOFTWARE FOR INFORMATION SECURITY 23 \$1,782,137 5D992 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 \$32 5D002 SOFTWARE FOR DEV/PROD/USE OF INFORMATION SECURIT 5 \$44 6A001 ACOUSTICS 10 SEV/PROD/USE OF INFORMATION SECURIT 5 \$46 6A003 CAMERAS 31 \$5,845,661 6A006 OPTICAL EQUIPMENT (LASERS) 4 \$60,864 6A007 ACOUSTICS 2 \$277,356 6A006 MAGNETOMENTES 2 \$277,356 6A007 MAGNETOMENTES 31 \$5,845,661 6A008 OPTICAL EQUIPMENT (LASERS) 4 \$51,639 6A009 MAGNETOMENTES 31 \$59,899,791 7B001 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 5 \$9,899,791 7B001 TEST/CALIBRATION/ALIGNMENT EQUIPMENT/SYSTEMS NOT 13 \$9,899,791 7B001 TEST/CALIBRATION/ALIGNMENT EQUIPMENT/SYSTEMS NOT 13 \$9,899		PACKAGED HIGH ELECTRON MOBILITY TRANSISTORS	2	\$6 <b>,</b> 552
3C001		~	2	\$120 <b>,</b> 791
3C001			1	\$20 <b>,</b> 091
30004 HYDRIDES OF PHOSPHORUS, ARSENIC, OR ANTIMONY 30980 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A 35 \$2,498,581 3E001 TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ 35 \$35 3E002 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 42 \$42 3E003 OTHER "TECHNOLOGY" 4A003 DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT 1 53,000,000 4A994 ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 2 5706,700 4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 36 581,435 4D002 SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E 21 521 4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC 16 5A991 TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 1 5708,400 58002 TEST/INSPECTION/PROD/USE OF ITEMS IN 5A001 1 5708,400 58002 TEST/INSPECTION/PROD/USE OF ITEMS IN 5A001/5B001/ 32 5D001 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 5D002 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 5D002 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 5D002 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 5D002 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 5D002 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 5D003 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 5D004 SOFTWARE FOR DEV/PROD/USE, ETC., OF EQUIP. IN 5A0 6A001 ACOUSTICS 10 6A002 OPTICAL SUNSORS 4 6A003 CAMERAS 31 6A066 MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S 1 5S06,000 6A991 MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT 1 5S07,000 6A991 MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT 1 5S1,536,727 7A002 GYROS AND SPECIALLY DESIGNED COMPONENTS 2 5S070 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SCURIT 1 5S1,536,727 7A003 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT 13 5S9,899,791 7B001 TECHNOLOGY FOR DEV/EMENT OF EQ. COMPONENTS 2 5S277,356 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT 13 5S9,899,791 7B001 TECHNOLOGY FOR DEV/EMENT OF EQ. CONTROLLED BY 7A 5S001 TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP 1 5S,000			4	\$13 <b>,</b> 818 <b>,</b> 399
3E002 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 3E003 OTHER "TECHNOLOGY"  4A003 DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT 1 \$3,000,000 4A994 ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 2 \$706,700 4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 36 \$1,435 4D002 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 36 \$36 4E902 SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E 4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 4E992 TECHNOLOGY FOR DEV/PROD/USE OF 4A994/4B994/4C994 3 \$815 5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC 5A991 TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 5A992 INFORMATION SECURITY EQUIPMENT 3 \$758,400 5B002 TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S 5D001 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 5D002 SOFTWARE FOR INFORMATION SECURITY 23 \$1,782,137 5D002 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 5D003 SOFTWARE FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 5E001 TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 5E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 5 \$4 6A001 ACOUSTICS 6A002 OPTICAL SENSORS 4 \$66,864 6A003 CAMERAS 6A004 CAMERAS 6A005 OPTICAL EQUIPMENT (LASERS) 6A006 MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S 6A016 MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S 75,845,661 75,7402 GYROS AND SPECIALLY DESIGNED COMPONENTS 75,000 7601 TEST/CALIBRATION/ALIGNMENT EQUIPMENT SPEEMS NOT 7602 GYROS AND SPECIALLY DESIGNED COMPONENTS 77,000 GYROS AND SPECIALLY DE		HETERO-EPITAXIAL MATERIALS	1	
3E002 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 3E003 OTHER "TECHNOLOGY"  4A003 DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT 1 \$3,000,000 4A994 ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 2 \$706,700 4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 36 \$1,435 4D002 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 36 \$36 4E902 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 4E992 TECHNOLOGY FOR DEV/PROD/USE OF 4A994/4B994/4C994 3 \$815 5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC 16 \$4,999,256 5A991 TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 1 \$708,400 5A992 INFORMATION SECURITY EQUIPMENT 3 \$758,400 5B002 TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S 2 \$2 5D001 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 \$32 5D002 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 \$32 5D002 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 \$32 5D002 SOFTWARE FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 40 \$66,545,573 5E001 TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 40 \$66,645 5E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 5 \$4 6A001 ACOUSTICS 40 \$60,864 6A003 CAMERAS 41 \$51,639 6A006 MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S 4 \$56,000 6A991 MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT 4 \$51,633 6A006 MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S 5 \$2,277,356 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT S 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT S 7A104 SETTION/ALIGNMENT EQUIPMENT S 7A105 SOFTWARE FOR COMMODITIES CONTROLLED BY 7A 7B001 TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY 7A 7B001 TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A 7E101 TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A 7E101 TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP 1 \$5,000 7E102 TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP 1 \$5,000		HYDRIDES OF PHOSPHORUS, ARSENIC, OR ANTIMONY	1	\$30,660
3E002 OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 3E003 OTHER "TECHNOLOGY"  4A003 DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT 1 \$3,000,000 4A994 ITEMS NOT CONTROLLED BY 4A001/4A002/4A003 2 \$706,700 4D001 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 36 \$1,435 4D002 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D 36 \$36 4E902 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW 36 \$36 4E992 TECHNOLOGY FOR DEV/PROD/USE OF 4A994/4B994/4C994 3 \$815 5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC 16 \$4,999,256 5A991 TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001 1 \$708,400 5A992 INFORMATION SECURITY EQUIPMENT 3 \$758,400 5B002 TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S 2 \$2 5D001 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 \$32 5D002 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 \$32 5D002 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/ 32 \$32 5D002 SOFTWARE FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 40 \$66,545,573 5E001 TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 40 \$66,645 5E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT 5 \$4 6A001 ACOUSTICS 40 \$60,864 6A003 CAMERAS 41 \$51,639 6A006 MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S 4 \$56,000 6A991 MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT 4 \$51,633 6A006 MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S 5 \$2,277,356 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT S 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT S 7A104 SETTION/ALIGNMENT EQUIPMENT S 7A105 SOFTWARE FOR COMMODITIES CONTROLLED BY 7A 7B001 TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY 7A 7B001 TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A 7E101 TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A 7E101 TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP 1 \$5,000 7E102 TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP 1 \$5,000		SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A	15	\$2,498,581
3E003 OTHER "TECHNOLOGY"  4A003 DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT  4A003 DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT  4A003 DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT  4D01 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D  4D01 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D  4D02 SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E  4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW  4E001 TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW  4E002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC  5A002 SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC  5A091 TRANSMISSION ITEMS NOT W/I PARAMETERS IN 5A001  5A002 INFORMATION SECURITY EQUIPMENT  3 \$7758,400  5B002 TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S  5D001 SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/  5D002 SOFTWARE FOR INFORMATION SECURITY  23 \$1,782,137  5D002 SOFTWARE FOR INFORMATION SECURITY  23 \$1,782,137  5D002 SOFTWARE NOT CONTROLLED BY 5D002  5002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5003 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5004 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5004 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5005 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5006 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5007 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5008 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5009 S366,545,573  5E001 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5009 S366,545,573  5E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5009 S366,545,573  5E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5009 S366,545,573  5E001 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5000 S57,967,610  5C00 S57,973  5E001 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5000 S57,967,610  5C00 S57,973  5E002 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5000 S57,967,610  5C00 S57,973  5E001 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT  5000 S57,973  5E001 TECHNOLOGY FOR DEV/PROD		TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/	35	\$35
### ### ### ### ### ### ### ### ### ##		OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3	42	
### ### ### ### ### ### ### ### ### ##		OTHER "TECHNOLOGY"	1	\$1
### ### ### ### ### ### ### ### ### ##		DIGITAL COMPUTERS/ASSEMBLIES AND RELATED EQUIPMENT	1	
### ### ### ### ### ### ### ### ### ##		ITEMS NOT CONTROLLED BY 4A001/4A002/4A003	2	
### ### ##############################		SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D	36	
5B002         TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S         2         \$2           5D001         SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/         32         \$32           5D002         SOFTWARE FOR INFORMATION SECURITY         23         \$1,782,137           5D992         SOFTWARE NOT CONTROLLED BY 5D002         9         \$366,545,573           5E001         TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0         40         \$56           5E002         TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT         5         \$4           6A001         ACOUSTICS         10         \$59,967,610           6A002         OPTICAL SENSORS         4         \$60,864           6A003         CAMERAS         31         \$5,845,661           6A005         OPTICAL EQUIPMENT (LASERS)         4         \$51,639           6A006         MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S         1         \$56,000           6A991         MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT         1         \$1,536,727           7A002         GYROS AND SPECIALLY DESIGNED COMPONENTS         2         \$277,356           7A103         INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT         13         \$9,899,791           7B001         TEST/CALIBRATION/ALIGNMENT EQUIPME		DOLLMING TO DOLLOW IDEMNOSCOL CONTROLLED DI 15		
58002         TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S         2         \$2           50001         SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/         32         \$32           5D002         SOFTWARE FOR INFORMATION SECURITY         23         \$1,782,137           5D992         SOFTWARE NOT CONTROLLED BY 5D002         9         \$366,545,573           5E001         TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0         40         \$56           5E002         TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT         5         \$4           6A001         ACOUSTICS         10         \$59,967,610           6A002         OPTICAL SENSORS         4         \$60,864           6A003         CAMERAS         31         \$5,845,661           6A005         OPTICAL EQUIPMENT (LASERS)         4         \$51,639           6A006         MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S         1         \$56,000           6A991         MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT         1         \$1,536,727           7A002         GYROS AND SPECIALLY DESIGNED COMPONENTS         2         \$277,356           7A103         INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT         13         \$9,899,791           7B001         TEST/CALIBRATION/ALIGNMENT EQUIPME		~		\$36
58002         TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S         2         \$2           50001         SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/         32         \$32           5D002         SOFTWARE FOR INFORMATION SECURITY         23         \$1,782,137           5D992         SOFTWARE NOT CONTROLLED BY 5D002         9         \$366,545,573           5E001         TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0         40         \$56           5E002         TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT         5         \$4           6A001         ACOUSTICS         10         \$59,967,610           6A002         OPTICAL SENSORS         4         \$60,864           6A003         CAMERAS         31         \$5,845,661           6A005         OPTICAL EQUIPMENT (LASERS)         4         \$51,639           6A006         MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S         1         \$56,000           6A991         MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT         1         \$1,536,727           7A002         GYROS AND SPECIALLY DESIGNED COMPONENTS         2         \$277,356           7A103         INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT         13         \$9,899,791           7B001         TEST/CALIBRATION/ALIGNMENT EQUIPME				\$815
5B002         TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S         2         \$2           5D001         SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/         32         \$32           5D002         SOFTWARE FOR INFORMATION SECURITY         23         \$1,782,137           5D992         SOFTWARE NOT CONTROLLED BY 5D002         9         \$366,545,573           5E001         TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0         40         \$56           5E002         TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT         5         \$4           6A001         ACOUSTICS         10         \$59,967,610           6A002         OPTICAL SENSORS         4         \$60,864           6A003         CAMERAS         31         \$5,845,661           6A003         CAMERAS         31         \$5,845,661           6A004         MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S         1         \$56,000           6A991         MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT         1         \$1,536,727           7A002         GYROS AND SPECIALLY DESIGNED COMPONENTS         2         \$277,356           7A103         INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT         13         \$9,899,791           7B001         TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED B				\$4,999,256
5B002         TEST/INSPECTION/PRODUCTION EQUIP FOR INFORMATION S         2         \$2           5D001         SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/         32         \$32           5D002         SOFTWARE FOR INFORMATION SECURITY         23         \$1,782,137           5D992         SOFTWARE NOT CONTROLLED BY 5D002         9         \$366,545,573           5E001         TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0         40         \$56           5E002         TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT         5         \$4           6A001         ACOUSTICS         10         \$59,967,610           6A002         OPTICAL SENSORS         4         \$60,864           6A003         CAMERAS         31         \$5,845,661           6A003         CAMERAS         31         \$5,845,661           6A004         MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S         1         \$56,000           6A991         MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT         1         \$1,536,727           7A002         GYROS AND SPECIALLY DESIGNED COMPONENTS         2         \$277,356           7A103         INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT         13         \$9,899,791           7B001         TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED B				\$708,400
5D001         SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/         32         \$32           5D002         SOFTWARE FOR INFORMATION SECURITY         23         \$1,782,137           5D992         SOFTWARE NOT CONTROLLED BY 5D002         9         \$366,545,573           5E001         TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0         40         \$56           5E002         TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT         5         \$4           6A001         ACOUSTICS         10         \$59,967,610           6A002         OPTICAL SENSORS         4         \$60,864           6A003         CAMERAS         31         \$5,845,661           6A005         OPTICAL EQUIPMENT (LASERS)         4         \$51,639           6A006         MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S         1         \$56,000           6A991         MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT         1         \$1,536,727           7A002         GYROS AND SPECIALLY DESIGNED COMPONENTS         2         \$277,356           7A103         INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT         13         \$9,899,791           7B001         TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY         2         \$712,300           7D101         SOFTWARE FOR COMMODITIES CON				
5E001         TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0         40         \$56           5E002         TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT         5         \$4           6A001         ACOUSTICS         10         \$59,967,610           6A002         OPTICAL SENSORS         4         \$60,864           6A003         CAMERAS         31         \$5,845,661           6A005         OPTICAL EQUIPMENT (LASERS)         4         \$51,639           6A006         MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S         1         \$56,000           6A991         MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT         1         \$1,536,727           7A002         GYROS AND SPECIALLY DESIGNED COMPONENTS         2         \$277,356           7A103         INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT         13         \$9,899,791           7B001         TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY         2         \$712,300           7D101         SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004,         3         \$2,001           7E001         TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A         1         \$1           7E102         TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP         1         \$5,000			32	\$22
5E001         TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0         40         \$56           5E002         TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT         5         \$4           6A001         ACOUSTICS         10         \$59,967,610           6A002         OPTICAL SENSORS         4         \$60,864           6A003         CAMERAS         31         \$5,845,661           6A005         OPTICAL EQUIPMENT (LASERS)         4         \$51,639           6A006         MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S         1         \$56,000           6A991         MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT         1         \$1,536,727           7A002         GYROS AND SPECIALLY DESIGNED COMPONENTS         2         \$277,356           7A103         INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT         13         \$9,899,791           7B001         TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY         2         \$712,300           7D101         SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004,         3         \$2,001           7E001         TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A         1         \$1           7E102         TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP         1         \$5,000			23	¢1 782 137
5E001         TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0         40         \$56           5E002         TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT         5         \$4           6A001         ACOUSTICS         10         \$59,967,610           6A002         OPTICAL SENSORS         4         \$60,864           6A003         CAMERAS         31         \$5,845,661           6A005         OPTICAL EQUIPMENT (LASERS)         4         \$51,639           6A006         MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S         1         \$56,000           6A991         MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT         1         \$1,536,727           7A002         GYROS AND SPECIALLY DESIGNED COMPONENTS         2         \$277,356           7A103         INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT         13         \$9,899,791           7B001         TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY         2         \$712,300           7D101         SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004,         3         \$2,001           7E001         TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A         1         \$1           7E102         TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP         1         \$5,000			23	\$1,702,137 \$366 545 573
5E002         TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT         5         \$4           6A001         ACOUSTICS         10         \$59,967,610           6A002         OPTICAL SENSORS         4         \$60,864           6A003         CAMERAS         31         \$5,845,661           6A005         OPTICAL EQUIPMENT (LASERS)         4         \$51,639           6A006         MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S         1         \$56,000           6A991         MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT         1         \$1,536,727           7A002         GYROS AND SPECIALLY DESIGNED COMPONENTS         2         \$2777,356           7A103         INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT         13         \$9,899,791           7B001         TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY         2         \$712,300           7D101         SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004,         3         \$2,001           7E001         TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A         1         \$1           7E102         TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP         1         \$5,000			40	\$56
6A001       ACOUSTICS       10       \$59,967,610         6A002       OPTICAL SENSORS       4       \$60,864         6A003       CAMERAS       31       \$5,845,661         6A005       OPTICAL EQUIPMENT (LASERS)       4       \$51,639         6A006       MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S       1       \$56,000         6A991       MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT       1       \$1,536,727         7A002       GYROS AND SPECIALLY DESIGNED COMPONENTS       2       \$2777,356         7A103       INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT       13       \$9,899,791         7B001       TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY       2       \$712,300         7D101       SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004,       3       \$2,001         7E001       TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A       1       \$1         7E101       TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A       2       \$401         7E102       TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP       1       \$5,000				
6A002       OPTICAL SENSORS       4       \$60,864         6A003       CAMERAS       31       \$5,845,661         6A005       OPTICAL EQUIPMENT (LASERS)       4       \$51,639         6A006       MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S       1       \$56,000         6A991       MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT       1       \$1,536,727         7A002       GYROS AND SPECIALLY DESIGNED COMPONENTS       2       \$277,356         7A103       INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT       13       \$9,899,791         7B001       TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY       2       \$712,300         7D101       SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004,       3       \$2,001         7E001       TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A       1       \$1         7E101       TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A       2       \$401         7E102       TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP       1       \$5,000				· ·
6A003       CAMERAS       31       \$5,845,661         6A005       OPTICAL EQUIPMENT (LASERS)       4       \$51,639         6A006       MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S       1       \$56,000         6A991       MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT       1       \$1,536,727         7A002       GYROS AND SPECIALLY DESIGNED COMPONENTS       2       \$277,356         7A103       INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT       13       \$9,899,791         7B001       TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY       2       \$712,300         7D101       SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004,       3       \$2,001         7E001       TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A       1       \$1         7E101       TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A       2       \$401         7E102       TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP       1       \$5,000				· · ·
6A005         OPTICAL EQUIPMENT (LASERS)         4         \$51,639           6A006         MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S         1         \$56,000           6A991         MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT         1         \$1,536,727           7A002         GYROS AND SPECIALLY DESIGNED COMPONENTS         2         \$277,356           7A103         INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT         13         \$9,899,791           7B001         TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY         2         \$712,300           7D101         SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004,         3         \$2,001           7E001         TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A         1         \$1           7E101         TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A         2         \$401           7E102         TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP         1         \$5,000				·
6A006 MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S 1 \$56,000 6A991 MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT 1 \$1,536,727 7A002 GYROS AND SPECIALLY DESIGNED COMPONENTS 2 \$277,356 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT 13 \$9,899,791 7B001 TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY 2 \$712,300 7D101 SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004, 3 \$2,001 7E001 TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A 1 \$1 7E101 TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A 2 \$401 7E102 TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP 1 \$55,000		OPTICAL EQUIPMENT (LASERS)	4	
6A991 MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT 1 \$1,536,727 7A002 GYROS AND SPECIALLY DESIGNED COMPONENTS 2 \$277,356 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT 13 \$9,899,791 7B001 TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY 2 \$712,300 7D101 SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004, 3 \$2,001 7E001 TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A 1 \$1 7E101 TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A 2 \$401 7E102 TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP 1 \$55,000		MAGNETOMETERS/MAGNETIC GRADIOMETERS/COMPENSATION S	1	\$56,000
7A002 GYROS AND SPECIALLY DESIGNED COMPONENTS 2 \$277,356 7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT 13 \$9,899,791 7B001 TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY 2 \$712,300 7D101 SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004, 3 \$2,001 7E001 TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A 1 \$1 7E101 TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A 2 \$401 7E102 TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP 1 \$5,000		MARINE OR TERRESTRIAL ACOUSTIC EQUIPMENT	1	\$1,536,727
7A103 INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT 13 \$9,899,791 7B001 TEST/CALIBRATION/ALIGNMENT EQUIPMENT CONTROLLED BY 2 \$712,300 7D101 SOFTWARE FOR COMMODITIES CONTROLLED BY 7A001/004, 3 \$2,001 7E001 TECHNOLOGY FOR DEVELOPMENT OF EQ. CONTROLLED BY 7A 1 \$1 7E101 TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A 2 \$401 7E102 TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP 1 \$5,000	7A002	GYROS AND SPECIALLY DESIGNED COMPONENTS	2	\$277,356
7E101 TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A 2 \$401 7E102 TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP 1 \$5,000			13	
7E101 TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A 2 \$401 7E102 TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP 1 \$5,000			2	
7E101 TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A 2 \$401 7E102 TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP 1 \$5,000			3	
7E101 TECHNOLOGY FOR EQUIPMENT/SOFTWARE CONTROLLED BY 7A 2 \$401 7E102 TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP 1 \$5,000	7E001		1	·
7E102 TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP 1 \$5,000 8A001 SUBMERSIBLE VEHICLES OR SURFACE VESSELS 2 \$283,293	7E101		2	\$401
8A001 SUBMERSIBLE VEHICLES OR SURFACE VESSELS 2 \$283,293	7E102	TECHNOLOGY FOR PROTECTION AGAINST EMI AND EMP	1	\$5,000
	8A001	SUBMERSIBLE VEHICLES OR SURFACE VESSELS	2	

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
9A001	AERO GAS TURBINE ENGINES	1	\$3,500,000
9A004	SPACECRAFT	38	\$9,502,659
9A018	COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST	2	\$22,000
9D003	SOFTWARE FOR USE OF FADEC FOR CERTAIN PROPULSION S		\$1
9E003	OTHER TECHNOLOGY	3	\$5,101
			, , ,
	TOTAL APPLICATIONS: 1832		
	TOTAL CCL'S: 83		
	TOTAL DOLLAR VALUE: \$1,491,045,612		
ma	7. T.		
TAJIKIS	TAN		
EAR99	ITEMS SUBJECT TO THE EAR N.E.S.	1	\$123,905
0A018	ITEMS ON THE INTERNATIONAL MUNITIONS LIST	2	\$32,462
0A978	SAPS	1	\$9,635
0A979	POLICE HELMETS, SHIELDS AND PARTS	1	\$62,533
0A982	THUMBCUFFS, LEG IRONS AND SHACKLES	1	\$25,320
0A987	OPTICAL SIGHTING DEVICES FOR FIREARMS	6	\$247,389
1A004	PROTECTIVE AND DETECTION EQUIPMENT	1	\$28,737
1A005	BODY ARMOR	2	\$240,413
1A985	FINGERPRINTING POWDERS, DYES, AND INKS	1	\$358
1C992	OIL WELL PERFORATORS	1	\$140
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	2	\$5
5A992	INFORMATION SECURITY EQUIPMENT	1	\$14,732
5D002	SOFTWARE FOR INFORMATION SECURITY	2	\$6
5D992	SOFTWARE NOT CONTROLLED BY 5D002	1	\$0
8A992	VESSELS, MARINE SYSTEMS, EQUIPMENT NOT 8A001/8A002	1	\$1,145
9A018	COMMODITIES ON THE INTERNATIONAL MUNITIONS LIST	1	\$64,500
	TOTAL APPLICATIONS: 13		
	TOTAL CCL'S: 16		
	TOTAL DOLLAR VALUE: \$851,280		
TURKME	NISTAN		
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	1	\$11,987
	ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0		\$9,689,000
	SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B	2	\$50,000
	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	8	\$67,763
5D002	SOFTWARE FOR INFORMATION SECURITY	4	\$336
		-	, , , ,

TOTAL APPLICATIONS: 11
TOTAL CCL'S: 5
TOTAL DOLLAR VALUE: \$9,819,086

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
UKRAINE	3		
0A986 0A987 1A004 1A005	ITEMS SUBJECT TO THE EAR N.E.S. SHOTGUNS, BUCKSHOT, SHOTGUN SHELLS DISCHARGE TYPE ARMS SHOTGUN SHELLS (EXCEPT BUCKSHOT SHELLS) AND PARTS OPTICAL SIGHTING DEVICES FOR FIREARMS PROTECTIVE AND DETECTION EQUIPMENT BODY ARMOR DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES	1 11 1 2 61 10 1	\$95,400 \$1,480,138 \$120 \$25,303 \$1,416,881 \$1,352,310 \$100,000 \$9,850,000
2B350 2B352 2E003 3A001 3A981	MATERIALS ON THE INTERNATIONAL MUNITIONS LIST CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS OTHER TECHNOLOGY ELECTRONIC DEVICES/COMPONENTS POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 3A980 AND 3A		\$156,000 \$1,500 \$2,500 \$2 \$22,598 \$163,400 \$0
3E001 3E002 4D001 4D002 4E001 5A002	TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/ OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3 SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/	5 6 6 3	\$5 \$6 \$6 \$3 \$6 \$10,512 \$5
5D002 5E001 5E002 6A002 6A003	SOFTWARE FOR INFORMATION SECURITY TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0 TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT OPTICAL SENSORS CAMERAS OPTICAL EQUIPMENT (LASERS)	3	\$4,004 \$14 \$1 \$157,600 \$301,559 \$78,600
6E001 6E002 7A103	TECHNOLOGY FOR DEVELOPMENT OF EQUIPMENT/MATERIALS/ TECHNOLOGY FOR PRODUCTION OF EQUIPMENT/MATERIALS I INSTRUMENTATION, NAVIGATION EQUIPMENT/SYSTEMS NOT OTHER TECHNOLOGY TECHNOLOGY FOR THE DEV/PROD/USE WITH ITEMS IN 9A99	1 2 1	\$0 \$0 \$40,000 \$1 \$2
	TOTAL APPLICATIONS: 131 TOTAL CCL'S: 33 TOTAL DOLLAR VALUE: \$15,258,476		
UZBEKIS	STAN		
1A004 1A005 1C010 3A101	ITEMS ON THE INTERNATIONAL MUNITIONS LIST OPTICAL SIGHTING DEVICES FOR FIREARMS PROTECTIVE AND DETECTION EQUIPMENT BODY ARMOR FIBROUS/FILAMENTARY MATERIALS USED IN MATRIX STRUC ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0 D-C HIGH-POWER SUPPLIES	1 2 2 1 1 3 1	\$61,800 \$1,250 \$675,556 \$41,250 \$48,517 \$12,645,000 \$10,720

CCL	DESCRIPTION	APPLICATIONS	DOLLAR VALUE
3D101	SOFTWARE FOR THE USE OF CERTAIN ITEMS IN 3A101.B	3	\$70,000
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	8	\$353 <b>,</b> 538
5D002	SOFTWARE FOR INFORMATION SECURITY	3	\$10
	TOTAL APPLICATIONS: 18		
	TOTAL CCL'S: 10		
	TOTAL DOLLAR VALUE: \$13,907,641		

### VIETNAM

0A979	POLICE HELMETS, SHIELDS AND PARTS	2	\$236,000
1A001	COMPONENTS MADE FROM FLUORINATED COMPOUNDS	3	\$230,000
1A001 1A004	PROTECTIVE AND DETECTION EQUIPMENT	4	\$1,482,750
1A004 1A007	DEVICES DESIGNED TO INITIATE ENERGETIC CHARGES	1	\$207,845,000
1A007 1A985		1	\$50,000
	FINGERPRINTING POWDERS, DYES, AND INKS	1	
1C008	NON-FLUORINATED POLYMERIC SUBSTANCES	1	\$204,000
1C018	MATERIALS ON THE INTERNATIONAL MUNITIONS LIST		\$10,000,000
1C107	GRAPHITE AND CERAMIC MATERIALS	1	\$25,000
1C202	ALUMINUM AND TITANIUM ALLOYS IN THE FORM OF TUBES/	2	\$1,000,000
1C210	FIBROUS/FILAMENTARY MATERIALS NOT CONTROLLED BY 1C	1	\$253,552
1C350	CHEMICALS, PRECURSORS FOR TOXIC CHEMICAL AGENTS	2	\$96,440
1C352	ANIMAL PATHOGENS	1	\$200
2B230	PRESSURE TRANSDUCERS	2	\$5,012
2B350	CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT	17	\$286 <b>,</b> 893
2B352	EQUIPMENT FOR HANDLING BIOLOGICAL MATERIALS	3	\$21,101
3A001	ELECTRONIC DEVICES/COMPONENTS	20	\$1,030,887
3A101	ELECTRONIC EQUIPMENT/DEVICES NOT CONTROLLED BY 3A0	2	\$1,148,230
3A225	INVERTERS/CONVERTERS/FREQUENCY CHANGERS/GENERATORS	3	\$44,946
3A231	NEUTRON GENERATOR SYSTEMS INCLUDING TUBES	1	\$2,400,000
3A233	MASS SPECTROMETERS	11	\$1,337,308
3A981	POLYGRAPHS/FINGERPRINT ANALYZERS/CAMERAS/EQUIPMENT	1	\$26,800
3D001	SOFTWARE FOR DEV OR PROD OF EQUIP CERTAIN ITEMS IN	2	\$2
3D002	SOFTWARE FOR USE OF CERTAIN EQUIPMENT CONTROLLED B	2	\$2
3D003	CAD SOFTWARE FOR SEMICONDUCTOR DEVICES/INTEGRATED	1	\$1
3E001	TECHNOLOGY FOR DEV OR PROD OF CERTAIN ITEMS IN 3A/	9	\$14
3E002	OTHER TECHNOLOGY FOR ITEMS IN CATEGORY 3	7	\$7
4D001	SOFTWARE FOR CERTAIN EQUIPMENT/SOFTWARE IN 4A-4D	2	\$2
4D002	SOFTWARE TO SUPPORT TECHNOLOGY CONTROLLED BY 4E	1	\$1
4E001	TECHNOLOGY FOR DEV/PROD/USE OF CERTAIN EQUIP/SOFTW	2	\$2
5A002	SYSTEMS/EQUIPMENT/INTEGRATED CIRCUITS FOR INFO SEC	11	\$197,104
5D001	SOFTWARE FOR DEV/PROD/USE OF ITEMS IN 5A001/5B001/	2	\$2
5D002	SOFTWARE FOR INFORMATION SECURITY	15	\$224,548
5E001	TECHNOLOGY FOR DEV/PROD/USE, ETC, OF EQUIP. IN 5A0	11	\$320
5E002	TECHNOLOGY FOR DEV/PROD/USE OF INFORMATION SECURIT	7	\$6
6A001	ACOUSTICS	1	\$55,172,920
6A003	CAMERAS	1	\$11,280
6A008	RADAR SYSTEMS/EQUIPMENT/ASSEMBLIES	1	\$80,000
7A003	INERTIAL NAVIGATION SYSTEMS (GIMBALLED/STRAPDOWN)	2	\$376,124
,11000	INDICITIE WINTONITION DIDIDING (OTHERIBED) DINALDOWN)	2	4010 <b>,</b> 124

TOTAL APPLICATIONS: 131
TOTAL CCL'S: 38
TOTAL DOLLAR VALUE: \$283,568,379

# **Appendix F: Report on Domestic Impact of U.S. Exports to Controlled Countries**

In accordance with Section 14(e) of the Export Administration Act of 1979 (EAA), as amended, the Bureau of Industry and Security (BIS) continues to assess the impact on U.S. industry and employment of output from "controlled countries" resulting, in particular, from the use of U.S. exports of turnkey plants and manufacturing facilities.

Section 14(e), which was added as an amendment to the Act in 1985, requires the following:

- "... a detailed description of the extent of injury to United States industry and the extent of job displacement caused by United States exports of goods and technology to controlled countries;" and
- "... a full analysis of the consequences of exports of turnkey plants and manufacturing facilities to controlled countries... to produce goods for export to the United States or to compete with United States products in export markets."

## **Goods and Technology Exports**

In calendar year 2012, U.S. exports to controlled countries totaled \$174 billion, which represents a 39.2 percent increase from 2011 levels of \$125 billion and about 9.8 percent of total U.S. worldwide exports. Historically, the dollar value of trade with controlled destinations, other than the People's Republic of China (PRC or China), has been low. China is the largest single export market among the controlled country group, with roughly 77 percent of the total. Russia ranks second with roughly 9 percent of the total. An analysis of exports by commodity category indicates that computer and electronic products, transportation equipment, machinery, chemicals, and waste and scrap represented more than half of the total U.S. exports to controlled countries, especially China. The small share of U.S. exports to controlled countries relative to total U.S. exports (9.8%) suggests that the overall adverse impact through injury to U.S. industry and job displacement is not large, although controls do have greater impact on certain industry sectors and companies.

<sup>2</sup> For the purpose of this section, "controlled countries" are: Albania; Armenia; Azerbaijan; Belarus; Burma, Cambodia; China (PRC); Cuba; Georgia; Iraq; Kazakhstan; Kyrgyzstan; Laos; Libya, Macao; Moldova; Mongolia; North Korea; Russia; Tajikistan; Turkmenistan; Ukraine; Uzbekistan; and Vietnam.

69

<b>Controlled Destinations</b>	Calendar Year 2011 U.S. Export (in millions)
Albania	\$57
Armenia	\$74
Azerbaijan	\$523
Belarus	\$107
Cambodia	\$239
China (PRC)	\$133,875
Cuba	\$650
Georgia	\$610
Iraq	\$7,316
Kazakhstan	\$2,211
Kyrgyzstan	\$182
Laos	\$45
Macao	\$304
Moldova	\$42
Mongolia	\$882
North Korea	\$17
Russia	\$15,979
Tajikistan	\$55
Turkmenistan	\$949
Ukraine	\$3,632
Uzbekistan	\$348
Vietnam	\$5,943
Total Exports to Controlled Destinations	\$174,040
Total Exports to All Countries	\$1,783,288
U.S. Exports to Controlled Destinations as a Percent of Overall U.S. Exports	9.8%
Percent of U.S. Exports to Controlled Destinations Requiring a BIS License	0.3%
Percent of U.S. Exports to Controlled Destinations Subject to a BIS License Requirement	2.5%

Although the basis for BIS's export controls are reasons of national security, foreign policy, and short supply, BIS -- as part of its defense industrial base monitoring responsibilities -- reviews on an ongoing basis the potential domestic impact of U.S. technology transfers. U.S. and other Western firms choose to establish production facilities in China for a variety of reasons, including technology transfer requirements imposed by China; a desire to take advantage of China's large pool of labor; the desire for proximity to the market for their products; and a desire to take advantage of business incentives created by Chinese local and national governments. The United States runs a trade deficit with China (\$315.1 billion in 2012), and more than 50 percent of China's exports originate from foreign-invested enterprises. Thus, these practices and trends raise concerns with regard to their impact on the competitiveness of U.S. industry and employment over the long term.

A review of license applications for exports to China in the past year shows that a significant number involve manufacturing equipment and facilities, electronics, and components for use in foreign-invested production facilities. Among the top-valued manufacturing equipment exported in 2011 were equipment for semiconductors, chemical manufacturing facilities, acoustics and electronic components. Examples of the top-valued components are mass spectrometers, integrated circuits and pressure transducers. Many other types of products, such as aircraft, computers and other electronic components are likely exported without the need for an export license (i.e., because they are not controlled for national security reasons or are eligible for shipment under a license exception). U.S. government policy is to encourage exports to China of commercial items for civil end uses and end users but not to export military items or commercial items for military end uses.

BIS also monitors certain forms of technology transfer as part of its overall responsibilities for the defense industrial base. These responsibilities include reviewing the impact of offsets on defense trade, participating in the Treasury Department-chaired Committee on Foreign Investment in the United States, and assessing the health and competitiveness of strategic industry sectors. Further information on these activities, including copies of the industrial sector assessments, is available from BIS's website at www.bis.doc.gov.

# **Turnkey Plants and Facilities Exports**

The Export Administration Regulations (EAR) require a license to export certain items for turnkey plants and facilities to controlled destinations. As a result of several revisions to the EAR in recent years, more items for turnkey plants and facilities have become eligible for export to controlled destinations without a license or under a license exception. For example, a license is generally not required for exports to controlled countries (except Cuba and North Korea) of items for turnkey plants and facilities that are designated as EAR99 (the designation for items that are subject to the EAR but not listed on the Commerce Control List). In addition, certain items for turnkey plants and facilities may be listed in a Commerce Control List entry where the applicable reason for control does not require a license to one or more controlled destinations, as indicated in the appropriate Reason for Control column of the Commerce Country Chart.

Other items for turnkey plants and facilities may be eligible for export to controlled destinations under a license exception, such as License Exception CIV (Civil End-Users), which authorizes exports of certain national security-controlled items to civil end users, for civil end uses, in most controlled countries, except Cuba and North Korea; or License Exception TSU (Technology and Software-Unrestricted), which authorizes exports of operation technology and software, sales technology, and software updates, subject to certain conditions.

U.S. export data that are available from the U.S. Census Bureau do not provide the level of specificity needed to identify exports of turnkey plants or items for turnkey plants and facilities. This precludes a thorough assessment of the impact of U.S. exports of items for turnkey plants and facilities to controlled countries. However, the small number of such exports in the past, coupled with the low percentage of U.S. exports destined for controlled countries and items subject to a license requirement, make it reasonable to conclude that the ultimate impact on U.S. production is not significant.

# Appendix G: Agricultural Supply Tables and Information

The U.S. Department of Agriculture (USDA) regularly updates the World Agricultural Supply and Demand Estimates (WASDE) report. The most recent report, prior reports, and a schedule of upcoming release dates for new reports may be accessed at:

http://www.usda.gov/oce/commodity/wasde

# **Appendix H: Export Control Reform Links**

# **News About Export Control Reform**

• Export Control Reform News

http://www.bis.doc.gov/index.php/about-bis/newsroom/export-control-reform-news

## **Speeches**

- Remarks by United States Trade Representative Michael Froman at the Bureau of Industry and Security Update Conference on Export Controls and Policy, July 24, 2013 http://www.ustr.gov/about-us/press-office/speeches/transcripts/2013/july/amb-froman-remarks-bis-export-controls
- Remarks by Secretary of Commerce Penny Pritzker at the 2013 Update Conference on Export Controls Policy, July 23, 2013
  - http://www.commerce.gov/news/secretary-speeches/2013/07/23/remarks-2013-update-conference-export-controls-and-policy
- Remarks of Under Secretary Eric L. Hirschhorn as Prepared for Delivery at the BIS Update Conference, July 23, 2013
  - http://www.bis.doc.gov/index.php/about-bis/newsroom/speeches?id=568
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- Remarks of Eric L. Hirschhorn, Under Secretary for Industry and Security at the American Association of Exporters and Importers' 92nd Annual Conference in Washington, DC, June 18, 2013
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- Remarks of Assistant Secretary of Commerce for Export Administration at the 2013 Paris Air Show's U.S. International Pavilion, Paris, France, June 18, 2013
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- Remarks of Assistant Secretary David Mills at the 8th Annual Export Control Forum, February 26, 2013
  - http://www.bis.doc.gov/index.php/about-bis/newsroom/speeches/103-about-bis/newsroom/speeches/speeches-2013/520-remarks-of-assistant-secretary-david-mills-at-the-8th-annual-export-control-forum

 Remarks of Under Secretary of Commerce Eric L. Hirschhorn at the Practicing Law Institute in Washington DC, December 10, 2012

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# **Testimony**

• Testimony by Assistant Secretary of Commerce for Export Administration Kevin J. Wolf Before the House Foreign Affairs Committee on "Advancing Export Control Reform: The Agenda Ahead," April 24, 2013

http://www.bis.doc.gov/index.php/about-bis/newsroom/testimony